

**AN ANALYSIS OF THE INTERNATIONAL REGULATION OF HAZARDOUS WASTE
FROM A SOUTH AFRICAN PERSPECTIVE.**

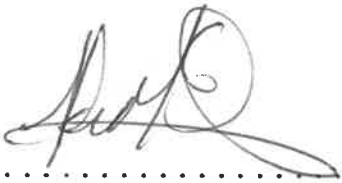
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Submitted as the dissertation component (which counts for at least fifty percent of the degree) in partial fulfilment of the requirements for the degree of Master of Laws in the School of Law, University of Natal, 1996.

DECLARATION

I hereby declare that this dissertation, which is submitted in partial fulfilment for the requirements of the Master of Laws Degree in the School of Law University of Natal, Pietermaritzburg, is my own unaided work, except where otherwise stated.

No part of this dissertation has been previously submitted for a degree to any other university.

A handwritten signature in dark ink, appearing to read 'Howard Earle Mc Cann', with a large, stylized circular flourish at the end.

.....
Howard Earle Mc Cann

Pietermaritzburg, January, 1996.

To Mom and Dad,
Thanks for everything.

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Abstract

This dissertation briefly explains the effects of continuing the hazardous waste trade, followed by a discussion of Thor Chemicals as a local example of this trade and its effects, before going on to discuss the international attempts at trying to curb this trade. The focus of attention will then turn to the merits and demerits of imposing an international ban. Finally, the document will conclude with a critical analysis of the law and policy governing hazardous waste in South Africa and possible suggestions to enable effective regulation of such waste in the future.

I: INTRODUCTION.

One of the most selfish aspects of humankind that distinguishes it from the remainder of life on earth is the characteristic of producing waste that not only endangers its own prospects of survival, but also those of the myriad plant and animal species that inhabit the planet with it. In the natural world, resources used and discarded by some living creatures become nutrients or raw materials for others. This re-use of raw materials contributes towards the circle of life as Mother Nature intended. Consequently, no true wastes exist in the natural world. Humans, on the other hand, are responsible for the depletion of the earth's natural resources. This one- directional use threatens a system that cannot support life indefinitely, even though methods of recycling and re-use do exist. However, due to a combination of overconsumption, ignorance, apathy, and an out-of-sight-out-of-mind attitude, the threat to the environment posed by human wastes persists, ensuring that avenues like cleaner production methods, recycling and re-use remain, for the large part, untouched.

Hazardous waste has been the focus of much debate in the recent past, and, due to the nature of the topic, this debate has concerned itself with several controversial issues. These have ranged from trying to regulate the international trade in such waste, to highlighting its effects, and, to formulating a definition, descriptive and definitive enough to clarify its composition, while at the same time, preventing any attempts by opportunists from relying on convenient loopholes, both legal and otherwise, to avert all forms of regulation.

The legal definition of hazardous waste will be considered at a later stage, nevertheless, for the purposes of an introduction, it is submitted that the following definition is suitable: Hazardous waste may be defined as -

solid or liquid waste, or combination thereof, that, because of its quantity, concentration, or physical/chemical or infectious characteristics, may -

- (i) cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or
- (ii) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.¹

In 1947 global hazardous waste production is estimated to have been only five million metric tons.² Today, however, the industrialised nations, producing ninety percent of the world's hazardous waste³, generate between three hundred and four hundred million tons annually.⁴ From the sheer volumes it is not

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E.W.Miller & R.M.Miller *Contemporary World Issues, Environmental Hazards: Toxic Waste and Hazardous Materials* (1991) 4.

2

J.H. Marbury 'Hazardous Waste Exportation: The Global Manifestation of Environmental Racism' (1995) 28 *Vanderbilt Journal of Transnational Law* 255 (hereafter referred to as Marbury).

3

R.H. Shearer 'Comparative Analysis of the Basel and Bamako Conventions on Hazardous Waste' (1993) 23 *Environmental Law* 144 (hereafter referred to as Shearer).

4

Marbury 255.

difficult to realize that these are the most unwanted of human by-products, and in the recent past, there has been an increase in awareness by the waste-producing developed world that it is becoming exceedingly difficult, if not impossible, to dispose of such wastes in an environmentally safe and secure manner. This, coupled with the tightening up of environmental laws and the increase in cost of disposal of such wastes has led producers to look elsewhere to dispose of their waste. The scapegoats are the developing countries of the so-called Third World, which are less equipped than their industrialised neighbours to deal with such waste. Environmental awareness in these countries, is generally lacking, as are the laws regulating waste disposal. Consequently, it is more profitable for producers and generators of hazardous waste to export their wastes for disposal to these countries, than it is for them to do so in their own backyard.

Hazardous waste disposal has become its own industry with unscrupulous companies buying waste from industries or government agencies and then arranging for it to be shipped to the Third World: a practice that has been described by many African countries as an extension of colonialism, slavery and environmental racism. Studies conducted by Weir and Porterfield⁵ revealed the existence of companies in the United States buying toxic waste for sale to the Third World. The largest known operation was that conducted by the Colbert brothers in New York and along the Eastern Seaboard of the USA.⁶ From their studies it was revealed that not only companies, but also government departments, including the Department of Agriculture and the Environmental Protection Agency (EPA) had sold their wastes to the Colberts.

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D. Weir & A Porterfield 'US Exports Hazardous Wastes to Third World' in Third World Network (Ed) *'Toxic Terror: Dumping of Hazardous Wastes in the Third World'* at 26 ff.

6

They relabelled a shipment of waste as pure dry-cleaning solvent and sold it to a company in Zimbabwe, which bought it with funds from the US Agency for International Development.

Hundreds of shipments of hazardous waste have been sent from the developed countries to contaminate the developing world. A study by Greenpeace revealed that one hundred and fifteen such shipments, between 1989 and 1991, had been sent to Latin American and African countries.⁷ An example of such a shipment is that of a West German company planning to export various hazardous wastes to Liberia. The company cited adequate dumping capacity, political stability and good geographical location as to why Liberia was a good dump site. It also stated ' We can solve the waste problem in West Germany by building a depot in Liberia.'⁸

The most notorious of all shipments is probably that of the *Khian Sea*, a ship carrying fourteen thousand tons of toxic incinerator ash from Philadelphia. It sailed the seas for over two years looking for a country that would allow it to dump its waste. The ship approached nineteen countries on five continents including the Bahamas, Bermuda, Honduras, the Dominican Republic, Guinea-Bissau, the Philippines and other South-East Asian countries, before allegedly dumping its contents in an unknown location, presumably the Indian Ocean.⁹

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Third World Network 'Toxic Waste Dumping in Third World Countries' in *Toxic Terror* 8. These countries included Mexico, Argentina, Brazil, Panama, Uruguay, Morocco, Senegal, Gabon, Guinea-Bissau, Djibouti, Zimbabwe and South Africa.

⁸ Third World Network in 'Toxic Terror' 9.

⁹ D.J.Abrams 'Regulating the International Hazardous Waste Trade: A Proposed Global Solution' (1990) 28 *Columbia Journal of Transnational Law* 808-809 (hereafter referred to as Abrams); M.Critharis, 'Third World Nations are Down in the Dumps: The Exportation of Hazardous Wastes' (1990) 16 *Brooklyn Journal of International Law* 318 (hereafter referred to as Critharis).

In the past hazardous waste exports have not only been conducted with governments directly¹⁰ but also with individuals.¹¹ Since 1989 industrialised countries have legally exported five million tons of hazardous waste, the primary motivation for this being economic.¹² Third World countries are willing to accept First World waste in return for much needed foreign exchange. And the First World countries are more than willing to comply. The cost of hazardous waste disposal has skyrocketed in these countries since the tightening of environmental regulations in the 1980s, where it may cost between \$1000 and \$2500 per ton, whereas African countries have accepted the said waste for a comparatively insignificant \$40 per ton.¹³ Related to this is the fact that developing countries are finding it increasingly difficult to repay the interest on foreign loans, let alone the loans themselves, received from the countries producing the waste. Hence, the foreign currency received by a country for accepting the waste is simply a way of relieving their debt

¹⁰ See n 10-13 and accompanying text.

¹¹ One such contract was in 1987 between Sunday Nana, a Nigerian farmer, and Italian national Gianfranco Raffaeli. It was through his company, Iruekpen Construction Company, that the waste was imported. The waste was to be stored on Nana's land near the port of Koko, and he was assured that it was not dangerous. Nana was to receive approximately \$ 120 a month for the storage. It was only when Nigerian students in Italy wrote to their government, informing them of the presence of the wastes, that they found out about it. On inspection of these supposedly harmless wastes, it was found that they contained polychlorobiphenyls (PCBs), one of the most dangerous chemicals in the world. Those involved in the transaction were arrested, the government recalled its ambassador from Rome and called on the Italian government to remove the waste from Koko. Shortly after this event the Nigerian government enacted the Toxic Waste (Special Criminal Law) 42\1988. In terms of this law it is an offence to receive, store, or dispose on the Nigerian territory or in territorial waters any toxic waste, an offence punishable by death. It is also an offence to attempt the same. See further C.M. Peter 'The Right to a Clean Environment: A Note on the Export of Toxic Wastes to Africa' (1990) 6 *Lesotho Law Journal* 36-37 & 50 (hereafter referred to as Peter).

¹² Marbury 256.

¹³ Peter 32.

burden.¹⁴

One such agreement was that between Guinea-Bissau and a group of European tanneries and pharmaceutical companies.¹⁵ It was a five-year \$600 million contract for which Guinea-Bissau was to be paid \$120 million a year for the disposal of three million tons of toxic waste.¹⁶ This yearly receipt of 'waste earnings' was equivalent to the West African country's Gross National Product (GNP).¹⁷ Fortunately however the contract was reversed and the Guinea-Bissau government banned the import of hazardous waste, the Minister of Health arguing that the contract represented a threat to the country's security, resources and its people. Furthermore, there would be risk of radioactive pollution which could contaminate surface and subterranean water. The Minister also noted that even the smallest rumour of pollution would be sufficient to harm the country's tourist industry.¹⁸

Following from these statistics it can be seen that, when the domestic costs of disposal greatly exceed the costs of similar disposal abroad, hazardous waste producers will opt to export their wastes instead of dispose of them at home. This is one of the many reasons why there had to be international regulation of hazardous wastes. Not only is this the case from a humanitarian perspective, but more importantly, from a legal one as well, in that such regulation would provide a recognised basis on which to combat the exploitation of developing nations in this regard. Consequently, it is necessary, from a legal viewpoint to consider the implications of regulating the trade in hazardous waste on an international scale, as well as the relevant instruments responsible for ensuring such effective regulation.

¹⁴ P.Lukey, C.Albertyn & H.Coetzee: 'Wasting Away: South Africa and the Global Waste Problem' in Cock J. & Koch E. (Eds) *Going Green: People, Politics and the Environment* (1991) 168 (hereafter referred to as Lukey et al).

¹⁵ Marbury 257.

¹⁶ Peter 32.

¹⁷ Lukey et al 12.

¹⁸ Peter 33 n 35.

The consequences of hazardous waste generation and disposal are numerous, and its effects are far-reaching. It is to these effects that the focus of this discussion will now turn. This will then be followed by a brief outline of the incidents surrounding Thor Chemicals' mercury processing activities, at Cato Ridge in KwaZulu-Natal. The remainder of the document will then concern itself with the international agreements governing the trade in hazardous waste, the controversy surrounding proposals to ban the export of such wastes to developing countries and the former Eastern Bloc countries, as well as South Africa's law and policy towards hazardous waste regulation. This will include criticisms of both the plethora of legislation governing the topic in South Africa and the recent Policy on Hazardous Waste Management published by the Department of Environmental Affairs and Tourism¹⁹, followed by possible suggestions for the future regulation of hazardous waste in South Africa.

¹⁹ GN R15987 of 30 September 1994.

II: EFFECTS OF HAZARDOUS WASTE.

Unfortunately the effects of hazardous waste have been considered externalities of the hazardous waste trade. The only gains to be made from this lucrative trade are the short-term economic profits experienced by the willing participants, usually at the long-term expense of the health and well-being of both the human population and the environment of the Third World countries targeted by the trading onslaught.

If the wastes are dumped indiscriminately they will have an immediate impact on the surrounding environment, contaminating the soil, killing the vegetation, polluting the groundwater, spilling over into riverine and marine systems contaminating their resources. And, even if the waste is stored in containers and concealed in dumps they will inevitably escape in the future as the containers and sites corrode with time.¹ The effect of an escape of this sort results in a ripple effect: rivers polluted by the effluent will kill off the river resources jeopardising the lives of the people who depend on it for their livelihood.² The soil also becomes contaminated rendering it useless for agricultural purposes depleting precious resources and endangering human life.

¹ Third World Network in *'Toxic Terror'* 16.

² This was the situation when mercury was released by Thor Chemicals into the Mngcweni River, which eventually feeds the Inanda Dam, the source of Durban's water needs. See further discussion on Thor Chemicals (Ch III).

Environmental Costs:

The impact of hazardous wastes on the environment only becomes known once it is too late, surroundings become contaminated and are rendered unfit for use, be it human or natural. In the Balkans four thousand tons of toxic waste were dumped at Sulina, where the Danube flows into the Black Sea. In July of 1988, seven Romanian politicians were jailed for between eleven and eighteen years for their part in the dumping operations. It was alleged that this catastrophe was the result of a deal between the Romanian Ministry of Foreign Trade, West Germany, Holland and Italy to allow dumping at Sulina by a Liechtenstein-based firm called Kimika. After the waste was dumped, the barrels in which it was contained began to leak. This resulted in considerable environmental damage in the Danube Delta which had some of the rarest species of wild birds in and around the Black Sea. Sulina was declared a disaster area.³

Human health :

Thousands of chemicals and radioactive substances produced by industry are detrimental to health and can prove fatal. A large percentage of the waste that industry disposes of is toxic, with direct skin contact, ingestion or inhalation posing serious health risks, yet, of the hundreds of toxic chemicals disposed of each year, very few have been fully tested for their impact on health and the environment. This may be true, nonetheless, there have been many documented incidents around the world of the consequences inherent in the improper disposal of hazardous wastes. Probably one of the most infamous is that of Love Canal in the United States. In 1842 William Love proposed to build a power canal along the Niagara River, however, it was only partially completed when the project was abandoned. In 1940 Hooker Chemicals bought the land and until 1953 used it as a

³ Third World Network in 'Toxic Terror' 9.

waste disposal site. An estimated twenty thousand tons of waste was buried in the canal. In 1953 the land was sold. A school was built on the rim of the canal and the remainder was sold for residential purposes.⁴ In 1976 foul-smelling liquids and sludge seeped into the basements of houses built on top of the dump. President Carter declared Love Canal a disaster area, the school was closed and the residents evacuated. In 1980 various tests were conducted showing that some residents had damaged chromosomes (raising the possibility of cancer in the living and unpredictable outcomes on future generations⁵), seizures, miscarriages (women located in certain areas of the canal suffered miscarriages fifty percent higher than the normal rate⁶) and birth defects. Millions of dollars have been spent on the clean-up of the town and purchase of the homes. Lawsuits totalling billions of dollars have been brought by residents against Hooker Chemicals, the Niagara Falls Board of Education and the City of Niagara Falls and both the New York State and the EPA have sued Hooker but it is unlikely that these claims will be settled in the years to come. Love Canal, meanwhile, is a ghost town.⁷

Transportation hazards:

With the international trade in hazardous wastes come the risks inherent in such a trade. The fact is that ships can and do sink, but more importantly, transporters have diminished incentive to avoid accidents resulting from such shipments partly because most countries' liability regulations are either non-existent, weak or unenforceable once the waste has left its

⁴ E.W.Miller & R.M.Miller 'Contemporary World Issues: Environmental Hazards: Toxic Waste and Hazardous Materials' 19-21 (hereafter referred to as Miller & Miller).

⁵ Third World Network in 'Toxic Terror' 15-16.

⁶ Miller & Miller 20.

⁷ Ibid.

country of origin.⁸ For example, liability under the Comprehensive Environmental Response, Compensation and Liability Act⁹ for US generators does not apply extraterritorially¹⁰, hence without the likelihood of liability, generators and transporters may tend to be more careless with their cargo thereby increasing the probability of an accident. Secondly, hazardous wastes generally have a negative value and therefore lack the usual incentives present for protecting cargo. A prime example of this would be the *Khian Sea*, whose cargo mysteriously vanished following the ship's refusal of entry by more than nineteen countries.

Economic costs:

Because of the health risks associated with hazardous wastes they need to be treated or stored properly, this itself incurs additional economic costs. Of further concern is the clean-up of toxic wastes that already exist and which, in the past have been dumped carelessly and indiscriminately on land, in water or unsatisfactory dumpsites. In the United States, the world's largest producer of hazardous wastes, the EPA identified over seventy-four thousand dumpsites of which thirty-two thousand were rated as bad as or worse than Love Canal.¹¹ Of more importance however, is the fact that only seven or eight of these sites are being cleaned up per year under the Superfund. In the build-up to the passing of CERCLA in 1980, the President's Council on Environmental Quality estimated that the cost of clean-up/remedial actions would be approximately \$22

⁸ Marbury 259.

⁹ 1980 42 USC sections 9601-9675 (1988 & Supplement VI 1994).

¹⁰ Marbury 259.

¹¹ Third World Network in 'Toxic Terror' 16.

billion¹², and to get an idea of the costs involved in such a clean-up, the bill for Love Canal alone was \$130 million.¹³

Therefore, even from an economic point of view it is not worthwhile for developing countries to accept hazardous waste. The short term monetary gain would be meagre indeed compared to the damage suffered to health and the environment, and the eventual costs needed to clean up the wastes once their harm had been done.¹⁴

The past discussion has been a general overview of the nature of hazardous waste and the problems inherent in seeking to continue such a trade. It is submitted that before one goes on to discuss the core of the topic, a brief study of the events of Thor Chemicals at Cato Ridge, in Kwazulu-Natal, would be necessary to bring the focus of attention closer to home. This will further highlight the need to ban the trade in all forms of hazardous waste, both internationally and to South Africa, in an attempt to prevent a similar incident from happening in the future.

¹² C.Hodgden 'Environmental Law: The Evolving Liability Framework of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)' (1994) 47 *Oklahoma Law Review* 139.

¹³ Third World Network in '*Toxic Terror*' 16.

¹⁴ Third World Network op cit 17.

III: THOR CHEMICALS.

' I don't deny that workers get sick, but mad, that's nonsense. We check the guys' urine every week and if levels exceed 200 micrograms of mercury per litre they are given orange juice to drink and taken away from the plant.'¹

Greenpeace claimed the Thor Chemicals incident to be the worst case in the international waste trade yet discovered.² At least two people died and twenty-nine other serious cases of mercury poisoning were recorded, along with widespread ecological damage as a result of the toxic trade scheme.³ The deal involved the pretext and presumption of environmentally sound waste management, via the recycling loophole⁴, to import hazardous waste from the United States and Europe into South Africa.⁵ Furthermore, the South African government exempted Thor from its

¹ Steve van der Vyver, Managing Director, Thor Chemicals, South Africa. Earthlife/Greenpeace *'Wasted Lives: Ban the Waste Trade'* No. 4, Recycling Series (1994) 20 (hereafter referred to as Earthlife).

² Earthlife 1.

³ Ibid.

⁴ This loophole is present in both European Community (Regulation 259/93) and American legislation (Resource Conservation and Recovery Act 1976). Moreover, even if South Africa and the United States had been parties to the Basel Convention at the time of contracting it would have allowed the export since it makes allowances for recycling. See further discussion on International Agreements on Hazardous Wastes (Ch IV).

⁵ The companies involved were: Thor's UK plant in Margate, American Cyanamid in New Jersey, USA, Borden Chemicals and Plastics, Louisiana, USA, Calgon Carbon Corporation, USA through a subsidiary in Indonesia. Earthlife 1.

so-called waste import ban⁶, calling its imports secondary raw materials. The then Minister of Environment Affairs, Gert Kotze, defended Thor's right to import saying that it was a *bona fide* manufacturing industry.⁷

Thor was paid approximately \$1,100 per ton to accept the hazardous waste, but it was revealed that they were not actually reprocessing the mercury. Instead, the company was making profits from claiming that they were and then simply storing the waste while attempting to operate unsound incinerator technology which, by their own admission, had failed to work effectively.⁸

Thor's operational atrocities were initially revealed when high levels of mercury were recorded in the Umgeni River approximately twenty-five kilometres from the plant.⁹ The levels in the river were found to be one thousand times the World Health Organisation's (WHO) safe level for drinking water.¹⁰ In addition, the Mngcweni, a smaller river upstream, was contaminated with mercury to such an extent that the local villagers had to be provided with drinking water from the surrounding areas. On the 21 February an ANC¹¹-sponsored delegation toured Thor. They were allowed free access to all areas of the plant and discovered three warehouses containing in

⁶ Lukey et al, at 170, state that the import of hazardous waste was apparently banned by a Ministerial Proclamation in September 1990, yet no such Proclamation has ever been gazetted.

⁷ Lukey et al 170. Although the Ministerial proclamation banning waste imports clearly stated that no hazardous waste could be imported, Koos Stander, The Department of Environment Affairs Director for Hazardous Waste had said that other companies could be granted the right to import toxic waste if they intended to extract raw materials from it, provided they complied with South Africa's water pollution and industrial safety regulations.

⁸ Earthlife 1.

⁹ Earthlife 16.

¹⁰ Ibid.

¹¹ African National Congress.

the region of ten thousand barrels of mercury wastes.¹² Mr Van der Vyver, the Managing Director of Thor, admitted to the delegation that Thor had not been processing the stockpiled waste. He also stated that for the past three years the plant had not made any product from recovered mercury. Furthermore, he admitted that the stockpiled waste was not economically viable and that it would cost Thor a vast sum of money to incinerate it, let alone recycle it. The only real profit gained from the entire operation was the \$1,100 per ton Thor was paid to receive the waste.¹³

One of the most disturbing features of Thor's operations were the conditions under which its workers were employed. The company employed unskilled workers to work with the high-risk procedures, without adequate training or supervision. The atmosphere of the workplace was highly contaminated with airborne and contact mercury, while no effective or proper use of protective clothing had been required or provided¹⁴, as Thor did not check whether the workers used or looked after their protective equipment properly.¹⁵ In fact, most of the workers were not informed of the dangers posed by mercury or educated about the symptoms associated with mercury poisoning. Nor was there an induction programme to make sure that all employees understood the processes and hazards involved.¹⁶

¹² Earthlife 7.

¹³ Ibid.

¹⁴ Earthlife 20.

¹⁵ Earthlife 26.

¹⁶ Ibid.

The company's attitude towards occupational safety could best be epitomized by the fact that one of the factory supervisors, used to train the workers, was himself contaminated by high levels of mercury in 1991.¹⁷ In essence, Thor's general disregard for the health of the workers was evident in the way the company monitored its workers, the way these employees were trained, the general conditions at the plant and the absence of any real health or medical services.

In most other countries Thor's activities would have been outlawed, but South Africa's previous government believed Thor's processing activities to satisfy the important environmental principle of optimising the use of a resource. It also said that the state-of-the-art process had great merit in conservation of the environment, yet Mr. Van der Vyver admitted that they had had major problems with their processes and had been unable to retrieve usable mercury.¹⁸

Notwithstanding this so-called state-of-the-art technology Thor was unable to prevent the most serious industrial contamination in South Africa's history. In allowing Thor to continue its practises the South African government not only turned a blind eye to the consequences, allowing Thor to carry on its business with little interference from the authorities, but also allowed it to exploit its workforce, exposing some to mercury levels well beyond the internationally accepted limits.¹⁹

¹⁷ Ibid.

¹⁸ Earthlife 7.

¹⁹ The World Health Organisation's safe limit for mercury in urine is fifty parts per billion (ppb). Earthlife 26.

The case of Thor Chemicals is a compelling enough example of the terrors involved in hazardous waste to warrant a full global ban on the export of such wastes, not only to developing countries, but also generally, since the likelihood of a similar event occurring may not be restricted to these countries alone.

Certain industrialised countries have claimed that the recycling of hazardous wastes can be carried out in an environmentally safe manner in developing countries, thereby justifying economically motivated exports to such countries. Unfortunately for such claims Thor illustrates that even countries, such as South Africa, that claim to have state-of-the-art technology cannot fully guarantee any degree of protection for its citizens or its environment.²⁰ Moreover, this negatively implies that the developed countries, in making this statement, do not have the technical capacity to recycle it themselves. This, however is hard to believe since if they have the technological capability to produce the waste then it follows that they should have the necessary capacity to recycle it.

The problem with Thor specifically is that it is a subsidiary of a company from the United Kingdom, a so-called developed country. In this case then, it might have been expected that an environmentally safe manner of recycling would have been more easy to attain than had the company been an entirely South African venture.²¹ Instead Thor has found itself being one of the first recycling companies to have been held responsible for the death of inhabitants in a waste recipient country.²²

²⁰ Earthlife 35.

²¹ According to Des Cowley, a major shareholder in Thor, the plant is an application of state-of-the-art technology, and is an enlargement of the original pilot plant in the UK. Earthlife 14.

²² Earthlife 35.

This has been a brief, but important outline of the events and consequences surrounding the incidents at Thor Chemicals. It has been necessary, it is submitted, to draw attention to this tragedy in order to highlight the affects of South Africa's previous position with respect to the international trade in hazardous wastes. It is to this that the focus of this paper now turns, and more specifically, the agreements governing such trade.

IV: INTERNATIONAL AGREEMENTS ON HAZARDOUS WASTE.

Transboundary movement of hazardous waste clearly affects more than just the importing nation, it also affects its neighbours and every country along the transportation route. Since the 1980s, the international community has come to realize the potential global dangers inherent in this issue, and has joined together in a conscious effort to combat the problem. What was necessary was the establishment of global, uniform principles from which any regional agreement, if, and once established, could not deviate. However, although it is quite clear that the risks associated with the hazardous waste trade have become public knowledge only recently, some pertinent customary international law principles should be looked at.

Firstly, certain duties accrue to states by virtue of possessing territory.¹ Included in this is the obligation on every state 'not to allow knowingly its territory to be used for acts contrary to the rights of other states'² This principle of customary law was adopted from the Trail Smelter Arbitration (United States v Canada 1941) in which it was said:

"Under principles of international law as well as the law of the United States, no state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties of persons therein, when the case is of serious consequences and the injury established."³

¹ J.I.Glazewski 'Regulating Transboundary Movement of Hazardous Waste: International Developments and Implications for South Africa' (1993) 26 *Comparative and International Law Journal of South Africa* 234, 238 (hereafter referred to as Glazewski).

² Ibid.

³ R.F.Fuggle & M.A.Rabie (Eds) 'Environmental Management in South Africa' (1994) 161.

It follows therefore, that states have a responsibility to ensure that certain activities within their jurisdiction or control do not cause damage to the environments of other states.⁴ Implicit in this declaration is the acknowledgement that pollution knows no human boundaries and is truly a global phenomenon.

Secondly, one could consider the **abuse of rights doctrine** and whether there is a general rule of customary law prohibiting the abuse of such rights. This doctrine could be used to explain the rule that no state may allow its territory to be used in a way which causes injury by fumes to the territory of another.⁵ However, while the doctrine has had some support in international tribunals, it has generally been accepted that it has not been established, either as a principle of customary law, or as a general principle of law recognised by civilised nations.⁶

Apart from the above, customary law does not provide a comprehensive enough regime to combat the trade in hazardous waste. Moreover, although it has developed the right to good neighbourliness between nations, it has been unable to deal with the more pressing issue of developing countries becoming the dumping ground for unwanted First World hazardous waste.

⁴ Glasewski 238.

⁵ Ibid.

⁶ Ibid.

Except for the international trade in wastes, this is not a well-developed field of international law. The law has played a limited role in preventing the generation of hazardous waste.⁷ Instead it has focused on the permissibility of the international movement and trade in such waste.

The international waste trade has also been addressed by various United Nations (UN) bodies as a human rights issue. The following are examples of these concerns:

* Principle 1 of the 1972 Stockholm Declaration -

'Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of quality that permits a life of dignity and well-being and he bears a solemn responsibility to protect and improve the environment for present and future generations.'⁸

* UN General Assembly Resolution 45\95 (1990) -

'All individuals are entitled to live in an environment adequate for their health and well-being.'

⁷ P.Sands '*Principles of International Environmental Law*' (1995) 492.

⁸ The United Nations Conference on the Human Environment held in Stockholm, June 1972. Furthermore, Principle 21 codifies the dictum in United States v Canada (Trail Smelter Arbitration) by affirming that 'states have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limit of their national jurisdiction.' This is reinforced by Principle 22 which requires states to enact legislation 'to develop further the international law regarding liability and compensation for victims of environmental damage.' See Critharis 322-323.

- * UN Commission on Human Rights has affirmed the relationship between the preservation of the environment and human rights.⁹
- * The Sub-Commission on Prevention of Discrimination and Protection of Minorities has considered the relationship between human rights and the movement of hazardous waste¹⁰ by declaring in draft terms that -

'the movement and dumping of toxic and dangerous products endanger basic human rights, such as the right to life, the right to live in a sound and healthy environment and consequently the right to health.'¹¹

Protection of the environment is also provided for in the African Charter on Human and Peoples' Rights and Environment. Article 24 provides for the right to a clean and satisfactory environment. However, in the past, discussion of the environment on the African continent concerned itself mainly with natural disasters arising from floods, droughts and agricultural pests such as locusts. The focus however has changed since the revelation of exports of waste by the developed countries to the 'Dark Continent', the result being that concerns were shifted to the affect such shipments would have on the people and environment of Africa.

⁹ Resolution 1990\41 (1990). See Sands 222-223.

¹⁰ Resolution 1988\26 (1988). See Sands op cit n 9.

¹¹ Resolution 1989\12 (1989). See Sands op cit n 9.

Unlike other areas of environmental concern it is evident that there are only a few international agreements that address the topic of hazardous waste directly. The primary agreement is the **Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal**¹², since it aims to regulate the movement of hazardous waste on an international scale. However, due to various limitations perceived by many African nations, a regional agreement was drafted which focused on the concerns of the African continent. This was known as the **Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement of Hazardous Waste Within Africa**.¹³ A third, and just as significant agreement from a South African point of view is the **Lome IV Convention**.¹⁴ There are also some important bilateral agreements between the United States and Mexico and Canada respectively as well as various Organisation for Economic Cooperation and Development (OECD) Acts and European Community Directives.

¹² Hereafter referred to as Basel. Reprinted in *'Transboundary Movements and Disposal of Hazardous Wastes in International Law: Basic Documents'* B.Kwiatkowska & A.H.A.Soons (Eds) (1993) 17-67 (hereafter referred to as Kwiatkowska). The convention was opened for signature on March 22, 1989, and lawfully entered into force on 5 May, 1992. In terms of article 25(1) of the convention, it would enter into force ninety days after the twentieth ratification of its proposals. For the purposes of this paper it is important to note that South Africa finally ratified the convention in May 1994, two years after it had officially entered into force.

¹³ Hereafter referred to as Bamako. Reprinted in Kwiatkowska 911-947. The convention was opened for signature on January 30, 1991 but has not entered into force yet since the requisite ten countries' signatures for it to do so have yet to be obtained.

¹⁴ Important from the perspective that until Bamako comes into effect South Africa would be able to support a partial ban (depending on which country the waste originated from) on the import\export of hazardous waste by subscribing to the provisions of the Lome Convention, which banned with immediate effect, the export of all hazardous wastes from European Community member states to African, Pacific and Caribbean (ACP) states. See further discussion on the Convention *infra*.

The adoption of these various conventions is an acknowledgement of the previous inadequacies of international law and the need for a more stringent form of regulation in this regard. Both Basel and Bamako developed from similar ideas, centring on United Nations (UN) efforts to control the transboundary movements of hazardous waste. Yet, as the beginnings of a final convention began to emerge it soon became apparent to some developing countries that the United Nations Environment Programme's (UNEP) proposals were not going to meet their needs. Consequently, when the final draft of Basel was promulgated in 1989, African states, under the auspices of the Organisation of African Unity (OAU), rejected its formulation, and, as an alternative, went about preparing Bamako.

Background to Basel

UNEP had been involved with the environmentally sound management and disposal of hazardous waste, including the controversy surrounding its transboundary movement since the early 1980s. Following the recommendations of the 1981 Montevideo Meeting of Senior Government Officials Expert in Environmental Law, adopted by the UNEP Governing Council in 1982, UNEP initiated work with government experts on the development of the Guidelines for the Environmentally Sound Management of Hazardous Wastes¹⁵ (Cairo Guidelines). These were completed in Cairo in 1985 and adopted by the UNEP Governing Council in 1987. At the same time, the Council authorized its Executive Director to organise a series of regional workshops to discuss further cooperation between the developed and developing countries in implementing the Guidelines.¹⁶

¹⁵ Basel Convention Secretariat: The Basel Convention and African Countries. Basel Convention Series/SBC No. : 94/010 Geneva, November 1994 1 (hereafter referred to as Basel Secretariat).

¹⁶ Ibid.

The Cairo Guidelines were aimed at national governments, to help them in developing effective policies to handle issues of hazardous waste management. Specifically, they called for international cooperation between countries given their joint responsibility towards protecting the environment.¹⁷ The Guidelines proposed a **prior informed consent** mechanism as a precondition for hazardous waste shipments¹⁸ and in doing so they acknowledged that, in promoting safe hazardous waste management, there had to be regulation of the transboundary shipment of such wastes, whether intended for recycling, treatment, or final disposal in the country of import.

This process was further enhanced by the Governing Council asking the Executive Director to convene a diplomatic conference to adopt and sign a global convention by early 1989.¹⁹ The urgency of the need to elaborate the convention was based primarily on the following considerations:

*** factual considerations** - The 1980s were highlighted by the tendency of developed countries to export their hazardous waste to the developing countries and former Eastern Bloc countries. This was due to three main factors -

- (i) disposal in developed countries was costly and/or restricted by their national legislation.
- (ii) the high degree of public awareness in the developed countries regarding the risks inherent in hazardous wastes led to the development of strict laws regulating the management and disposal of such wastes.

¹⁷ Abrams 816.

¹⁸ Ibid.

¹⁹ Decision 14/30 17 June 1987.

- (iii) disposal costs were only a fraction of what they were in the developed countries. This was the main incentive for the export of wastes.²⁰

*** legal considerations** - Most of the developing countries did not have the requisite legal and administrative framework to effectively control, and more importantly, prevent the dumping of hazardous wastes in their country.

*** technical considerations** - These developing countries also lacked the necessary technical capacity and capabilities to dispose of the wastes in an environmentally sound manner. Consequently the wastes were often disposed of illegally and in a way which was damaging to human health and the environment.²¹

The Convention was adopted unanimously on 22 March 1989 by the one hundred and sixteen countries attending the Conference of Plenipotentiaries. The Final Act was signed by one hundred and five countries and the European Economic Community, and it entered into force on 5 May 1992.²²

²⁰ Basel Secretariat 1-2.

²¹ See Ch II n 1-7 and accompanying text.

²² Basel Secretariat 3.

Background to Bamako

The OAU officially condemned the export of hazardous waste to the African continent in May, 1988. The anti-dumping declaration was part of a joint African statement to mark the twenty-fifth anniversary of the Organisation.²³ This formal response was contained in Resolution 1153²⁴ and declared the dumping of nuclear and industrial waste in Africa to be a 'crime against Africa and the African People.'²⁵ Resolution 1153 contained the basic themes governing hazardous waste control that were subsequently incorporated into Bamako, namely -

- * a ban on the import of hazardous waste into Africa,
- * liability of waste generators for damage caused by their waste,
- * assistance from the developed countries in monitoring and controlling hazardous waste movements, and
- * using ecologically rational methods for the disposal of hazardous wastes.²⁶

²³ Peter 42.

²⁴ Resolution CM/RES.1153 (XLVIII) on Dumping of Nuclear and Industrial Waste in Africa 23 May 1988. Reprinted in Kwiatkowska 957.

²⁵ Declaration 1, Resolution 1153, op cit n 24.

²⁶ W.J.Donald 'The Bamako Convention as a Solution to the Problem of Hazardous Waste Exports to Less Developed Countries' (1992) 17 *Columbia Journal of Environmental Law* 419, 431 (hereafter referred to as Donald). See further Resolution 1153 Declarations 2, 3, 5 & 8 in Kwiatkowska 957.

Finally, the resolution called on the Secretary-General of the OAU to 'take appropriate steps to ensure the inscription of The Dumping of Nuclear and Industrial Wastes in Africa as an item on the Agenda of the Forty-third Session of the United Nations General Assembly.'²⁷ This was done in the hope that the export to, and dumping of, hazardous wastes in general, and particularly in Africa, would receive international condemnation.²⁸

This condemnation however, seemed to fall on deaf ears and so in February 1989 the OAU formally recognised, in Resolution 1199²⁹, that Basel was not going to provide the protection that the OAU desired -

'Concerned that the draft Global Convention for the Control of Transboundary Movement of Hazardous Waste is merely aimed at the regulation or control, rather than the prohibition, of transboundary movement of hazardous wastes, contrary to the spirit of Council Resolution CM/RES.1153 (XLVIII) which determines that dumping of hazardous wastes is a crime against Africa and the African People.'³⁰

This clearly reiterated the OAU's desire to ban the transboundary movement of hazardous waste, rather than simply regulate or control it. It further expressed concern over the inadequacy of the provision for the monitoring mechanism 'Dumpwatch' and noted the inadequate provision for technical and financial support for the safe and environmentally-sound disposal of such wastes in the importing states. The Resolution

²⁷ Declaration 6, Resolution 1153 in Kwiatkowska 957.

²⁸ Peter 42-43.

²⁹ Resolution CM/RES 1199 (XLIX) on Global Convention for the Control of Transboundary Movement of Hazardous Waste, 25 February 1989. Reprinted in Kwiatkowska 958-960.

³⁰ Kwiatkowska 959.

concluded by calling upon all African states to reach common agreement, from an African viewpoint, on ameliorating the inadequacies contained in the draft (Basel) convention.³¹ As a result of Resolution 1199, no OAU-member nation signed Basel in 1989.³²

The OAU followed this up with Resolution 1225.³³ It took cognisance of the consequences that the dumping of hazardous waste can have on social and economic development in Africa and called upon the Secretary-General to continue the preparation and holding of the OAU Pan-African Coordinating Committee Conference in Bamako, Mali.

The main aim of this conference was to draw up a draft (reciprocal) agreement of African states aimed at the 'implementation and effective prohibition of the import of hazardous waste into Africa.'³⁴ The OAU also recognised that a ban on the importation of wastes would not necessarily solve the problem of wastes generated within Africa and called for the laying of foundations for regulating the movement and processing of such wastes. The OAU set up a working group of legal and environmental experts to draft the document. This was completed in January 1991 and presented to the delegates of the Pan-African Conference on Environment and Sustainable Development. Bamako was signed by all the Environment Ministers of the OAU member states, and although a vast majority of African

³¹ Ibid.

³² Donald 430. See also Resolution 1225(L), Kwiatkowska 960. The situation has, however, changed and, as of October 1994, nine African countries had ratified the Convention, those being Egypt, Malawi, Mauritius, Nigeria, Senegal, Seychelles, Tanzania, Zaire and South Africa. Several other (African) nations had also informed the Secretariat that they were in the process of ratifying or acceding to Basel. See Basel Secretariat 3.

³³ Resolution CM/RES 1225(L) on Control of Transboundary Movement of Hazardous Wastes and Their Disposal in Africa, 22 July 1989. Reprinted in Kwiatkowska 960-962.

³⁴ Kwiatkowska 960.

governments have signed the Convention³⁵, it has yet to enter into force, since the tenth signature required for it to do still has to be obtained.

To date only nine countries have ratified Bamako, and if South Africa were to become the tenth country to do so it would enter into force. This has far-reaching implications, not only for South Africa, but also for the Convention in that it would finally become a legally binding, internationally recognised document, further contributing to the OAU's mission to prevent the African continent from becoming a toxic dumping ground for unwanted wastes. For South Africa however, ratifying the Convention would also be of great political significance, given its checkered past, and future role that it has to play as one of Africa's superpowers. Consequently serious consideration should be given to adopting Bamako, if not for environmental reasons, then for political ones.

Comparative Analysis of Basel and Bamako

The main difference between the two Conventions is that Basel regulates the international trade in hazardous waste while Bamako bans its importation onto the African continent. The latter Convention does, however, allow for the intra-African trade in such waste as well as explicitly allowing for its export. This latter provision, however, seems to lack any form of real significance since it is highly unlikely that those countries expressly prohibited from exporting waste to Africa will be willing to except Africa's hazardous waste products when they themselves are trying so desperately to get rid of their own.

³⁵ twenty-three as of August 1992.

With respect to trade generally, both Conventions seek to introduce a regulatory regime on hazardous waste, in fact many of the provisions are identical, and, because of these similarities one assumes that the differences that do exist between the Conventions are the result of the OAU's dissatisfaction at Basel's treatment of the subjects over which they differ.

Basel provides that hazardous waste cannot be exported to, or imported from, a non-party state.³⁶ The effectiveness of this provision, however, is somewhat watered down by article 11 which allows for parties to the Convention to enter into bilateral, multilateral or regional agreements with either party or non-party states for the transboundary movement of such wastes. Bamako also provides for bilateral or multilateral agreements between parties and non-parties, but states further that such agreements may not derogate from the environmentally sound management of hazardous waste as required by the Convention.³⁷ This further supports the Bamako ban by allowing such agreements only for hazardous wastes generated within Africa, thereby guaranteeing that if non-signatories were to import waste into Africa it could not be exported to the rest of continent. This is an important precaution in that if a non-signatory was to import waste as a raw material or for recycling, then, following such use, that country would be prevented from disposing of the wastes in other African nations.³⁸

³⁶ Article 4(5)

³⁷ Article 11(1).

³⁸ Donald 433.

The Bamako ban obliges parties to it to ban completely the import of hazardous waste into Africa by all contracting parties. It also requires the parties to take the appropriate legal and administrative measures to ensure the effectiveness of the ban.³⁹ Any such importation is both an illegal and criminal act⁴⁰, and is regarded as such against both Africa and African people generally. From a South African perspective the statement made by Dr.Dawie de Villiers, the Minister of Environmental Affairs and Tourism, at the Consultative Conference on National Environmental Policy on 17 & 18 August, 1995, that there would be a complete ban on the import and export of hazardous waste, is the initial step towards fulfilling such an obligation, providing however that South Africa ratifies the Convention first.

In summary then, while the underlying philosophy behind Basel is to regulate rather than proscribe the hazardous waste trade, and thereby provide a regulatory framework for its transboundary movement, Bamako seeks to prevent the African continent from becoming a dumping ground for the First World's unwanted waste. Bamako also recognises the strict liability of hazardous waste generators for damage caused by their wastes while Basel conveniently avoids this issue. Bamako promotes open dissemination of information relating to the movement and disposal of waste via mandatory disclosures and an active Secretariat. Basel, on the other hand, says nothing of such disclosures and its Secretariat is more passive. The regulatory requirements governing the movement of hazardous waste are generally more limiting under Bamako than under Basel, and, whereas Bamako emphasises clean production methods and the relocation of industries to Africa that use such processes,

³⁹ Article 11. The import ban applies to all wastes, whether they be for disposal or recycling.

⁴⁰ Article 4(1)

Basel does not address industry relocation directly.⁴¹

Scope, Definitions and Terminology

Article 1 provides for the scope of the Basel Convention but this has to be read with article 2(1) which defines the concept of waste. Article 1 refers to both 'hazardous' and 'other waste', a distinction evident throughout the entire Convention. What constitutes 'hazardous waste' is determined by referring to Annex I of the Convention, however, it will only qualify as hazardous if it contains certain characteristics listed in Annex III.

'Other waste' is defined in Annex II and the only substances falling within this category are -

- * waste collected from households, and
- * residues arising from the incineration of household wastes.

Bamako's application is similarly determined by reference to article 1, its general definition provision, and article 2, its scope. It follows the same pattern as Basel in defining hazardous waste and its annexes are identical barring one important aspect: Bamako does not specify household waste or residue resulting from their incineration in a separate annex as in Basel⁴², instead they are included in Annex I as wastes which qualify as hazardous. The respective definitions however do not seek to restrict the definition of hazardous waste in that both Conventions allow for the inclusion of other waste ie: any other waste defined as hazardous by the domestic legislation of states party to the respective Convention falls within the definition

⁴¹ Donald 432.

⁴² Annex 2.

of hazardous waste within that Convention.⁴³

Both Conventions exclude waste derived from the normal operation of ships.⁴⁴ This is covered by other international conventions.⁴⁵ However, while Basel specifically excludes radioactive waste⁴⁶ it is expressly included by Bamako⁴⁷, even though it may be controlled by other international agreements. From a South African perspective this is an important provision, given the fact that the country does have a nuclear reactor. And, although this field is governed by the International Atomic Energy Agency's (IAEA) Codes of Practice⁴⁸, if South Africa was to ratify the Convention and it entered into force, this provision could act as a further deterrent against any attempts to profit from such an illegal trade.

The terminology of the Conventions' definitions does have practical implications. For example, the transportation of toxic substances to or through a country over which either Convention exercises jurisdiction may not fall within the scope of the said Convention, in that it may not constitute hazardous waste. A local example is that of Thor Chemicals, where it was found that spent mercury catalysts were imported by the company to be re-processed as a raw material and thus did not qualify as

⁴³ Basel article 2(1)
Bamako article 2(1)(b)

⁴⁴ Basel article 1(4)
Bamako article 2(3)

⁴⁵ See for example the Convention on the Prevention of Marine Pollution By Dumping of Wastes and Other Matter (London Dumping Convention), 1972.

⁴⁶ Article 1(3)&(4)

⁴⁷ Article 2(3)

⁴⁸ IAEA Code of Practice on the International Transboundary Movement of Radioactive Waste as adopted by the General Conference GC(XXXIV)/Res/530 of 21 September 1990. Reprinted in Kwiatkowska 70-75.

hazardous waste. And, even if South Africa had been a party to Basel at the time it would still have allowed the shipments, especially in light of its recycling provision.⁴⁹

As far as geographical scope is concerned, both Conventions prohibit the export of hazardous waste south of sixty Degrees South Latitude, the Antarctic Treaty Area.

General Prohibitions

Both Conventions acknowledge the sovereignty of all party-states. Included in this, is the right of the parties to prohibit, not only the entry of waste into their territories, but also its transboundary movement. From here on Bamako contains certain provisions not contained in Basel. More specifically, it prohibits parties from dumping hazardous waste into any area of the sea, be it under coastal state jurisdiction or on the high seas, even though dumping at sea is governed by the London Dumping Convention of 1972. Such dumping is illegal and parties must pass necessary national legislation, conforming with the relevant international agreements, to prevent it.⁵⁰ These are important provisions given the fact that South Africa is a coastal state, and as such, this is a necessary provision that must be included in any future municipal Act governing hazardous waste in South Africa. Bamako also imposes controls on non-party carriers which convey hazardous waste through maritime zones subject to coastal state jurisdiction.⁵¹

⁴⁹ Article 4(9)(b).

⁵⁰ Article 4(2)(a)

⁵¹ Article 4(2).

Apart from the ban on importing hazardous waste onto the continent Bamako also focuses on the control of hazardous waste generated within Africa.⁵² These obligations are not only limited to controlling transboundary movements in Africa but also impose duties on parties regarding the generation and disposal of waste exclusively within a party's territory. This is a serious inroad into the concept of sovereignty and an approach not found in Basel.

Regulation of Trade in Waste

Basel imposes a general prohibition on exporting waste to party states that have prohibited such import⁵³, as well as prohibiting export to states who have not consented in writing to such importation.⁵⁴ Export is also prohibited where notification procedures and documentation requirements have not been complied with.⁵⁵ Bamako has similar provisions. No export may take place where a party state has expressly prohibited such import in its national legislation⁵⁶, conversely no export may occur where the state of import has not specifically consented to the import in writing (where it has not actually banned such import).⁵⁷

⁵² Article 4(3)

⁵³ Article 4(1)(b)

⁵⁴ Article 4(1)(c)

⁵⁵ Article 4(4)

⁵⁶ 4(3)(i)

⁵⁷ Article 4(3)(s)

Furthermore, Basel contains a provision in apprehension of Bamako⁵⁸ which provides that no waste may be exported to a country belonging to an economic and/or political integration organization which has prohibited, by legislation, waste imports or where there is reason to believe that such waste will not be managed in an environmentally sound manner. By accession to the OAU, this provision could further strengthen any prohibition of the waste trade to and from South Africa.

Bamako contains similar provisions in this regard, that is, hazardous waste may not be exported to states where -

- * the country does not have the facilities available to dispose of or treat the waste in an environmentally sound manner, and
- * the exporting country has not satisfied itself that the waste is to be managed in that manner in the importing state and state of transit.⁵⁹

When one looks closer at both Conventions one finds subtle yet important differences. For example, Basel uses a 'reason to believe' standard, implying that it is the state of mind of the exporter, and not the actual conditions in the importing country that is of consequence to the final decision whether to import or not.⁶⁰ In contrast, Bamako focuses on the facilities available in the importing state. If these are inadequate (for the environmentally sound treatment or disposal of hazardous waste) then an exporter cannot ship the wastes to that country. So, not only must there be the requisite facilities, but the exporting state also has to satisfy itself that the importing state has the capacity to handle the waste.

⁵⁸ Article 4(2)(e)

⁵⁹ Article 4(3)(i)&(j).

⁶⁰ See also article 4(2)(g).

One of the more important consequences of the drafting of both of the Conventions is their prioritisation of the environment through the concept of '**environmentally sound management of hazardous wastes.**' In both Conventions this is defined as follows -

'taking all practical steps to ensure that hazardous waste is managed in a manner which will protect human health and the environment against the adverse effects that may result from such wastes.'⁶¹

Kummer⁶², however, criticizes this definition saying that it is too open-ended and suggests that a more comprehensive definition be introduced so as to avoid any major loopholes that may arise. Furthermore, the definition is phrased in general terms and fails to specify the criteria necessary to help the exporting and importing countries determine whether the shipment complies with this requirement or not.⁶³ During the build-up to Basel, the African delegates proposed a more stringent standard for waste exports but this was rejected, largely due to the continuous pressure from the United States and other exporting countries. The proposed standard would only have allowed exports if they were to be handled and disposed of in the importing country in no less strict a manner than would have been required in the exporting country. This standard would have vastly reduced the hazardous waste trade, but was too far reaching to be acceptable to the leading waste exporting countries. Furthermore, given the fact that this 'no less strict' standard was turned down by the delegates at Basel it is surprising that it was not included in Bamako instead of the 'environmentally

⁶¹ Basel article 2(8)
Bamako article 1(10)

⁶² K.Kummer 'The International Regulation of Transboundary Traffic in Hazardous Waste: The 1989 Basel Convention' (1992) 41 *International Comparative Law Quarterly* 530, 541-2.

⁶³ Abrams 828.

sound waste management' standard. This problem is, however, somewhat overcome by requiring the exporting state to determine whether the importing state has the capacity to handle the consignment of hazardous waste.

The above standard, as applied in Basel, leaves uncertain the critical issue of whether compliance with it is applicable to the exporting country even after the importing country has consented to the shipment. The standard requires the competent authorities of the exporting country to make an independent case-by-case assessment of the acceptability and environmental soundness of the proposed site and method for the treatment, storage and disposal of the wastes in question.⁶⁴ Moreover, the fact that the wastes are destined for reuse or disposal outside the national jurisdiction of the exporting country limits the extent to which its officials can independently investigate the appropriateness of the proposed treatment, disposal method or location, unless they are specifically requested to do so by the importing country.⁶⁵

Furthermore, once an importing country has consented to receive a waste shipment, it could be argued that, apart from regulating the shipment's transportation, the exporting country would have satisfied all of its other obligations. Discounting such a position, Basel's requirement of environmentally sound waste management implies that if this ambiguous standard is not satisfied, any consent given by the importing country is inadequate and invalid.⁶⁶

⁶⁴ Ibid. It is further submitted that this case-by-case determination may be hindered by allowing an exporter or generator to use a general notification procedure as set out in article 6(6).

⁶⁵ Abrams 828.

⁶⁶ Abrams 829.

The above problem is compounded further by the fact that countries may disagree as to what actually constitutes environmentally sound waste management. Nevertheless, the exporting country should still be obliged to prohibit the export of hazardous waste, in spite of any consent by the importing country⁶⁷, where it is convinced that the wastes will not be handled and disposed of in the correct manner in the proposed country of import. This obligation should not only be founded on the knowledge of waste management but also on a moral and legal responsibility to prevent the unsafe disposal of waste from causing serious environmental damage in the importing state. Otherwise, to allow such a shipment would constitute a violation of the fundamental right to an environment adequate for health and well-being as contained in the Stockholm Declaration.⁶⁸

Related to this is the fact that transboundary movement can only take place, under Bamako, if the exporting country does not have the necessary technical capacity and facilities/disposal sites itself to dispose of the waste in an environmentally sound manner.⁶⁹ Bamako then takes the process one step further by setting out desirable waste management practices.⁷⁰ In a nutshell, these goals outline clean production methods rather than a permissible emissions approach. The obligation is to the product's entire lifecycle, and Glazewski⁷¹ submits that they reflect the **cradle-to-grave** approach and as a result are in keeping with the general philosophy of **Integrated Environmental**

⁶⁷ This may be seen as a serious inroad into the sovereignty of the importing country but when human health and the environment are both at stake it is submitted that the duty to monitor waste treatment and disposal far outweighs any possible intrusion on state sovereignty that such a duty may entail.

⁶⁸ See n 8-11 and accompanying text *supra*.

⁶⁹ Article 4(3)(n)(i)

⁷⁰ Article 4(3)(f)

⁷¹ at 244.

Management (IEM) in South Africa.

Bamako contains rules regulating the intra-African movement of hazardous waste⁷² and they are comparatively more stringent than the similar provisions found in Basel. Regulations in article 6 make it more difficult to ship wastes, and easier to monitor the shipments. Article 6(6) requires shipment specific notification even where hazardous wastes having the same characteristics are shipped regularly to the same disposer. This is in sharp contrast to Basel which allows an exporter to obtain general notification for multiple shipments of waste.⁷³

Furthermore, Bamako limits the points and ports of entry of hazardous waste imports⁷⁴ thereby allowing the severely limited regulatory resources of a party-state to be focused on these points only. Restricting the points of entry makes it presumptively illegal to possess hazardous wastes at national borders beyond those designated points.⁷⁵ These provisions would be of major importance given South Africa's status as a coastal state. To include them in a municipal Act would not only restrict the possible points of entry and exit of hazardous waste to and from South Africa, but also help alleviate the pressure on its enforcement agents in trying to counter the illegal shipments as well. Basel contains no such limit on the points and ports of entry.

⁷² Article 6.

⁷³ Basel article 6(6).

⁷⁴ Article 6(7).

⁷⁵ Donald 437.

Transit state consent is another of Bamako's provisions that maintains a more strict form of control than that of Basel. The latter allows shipments through transit states without written consent if they waive that right. Consent is waived 60 days after the exporting nation has notified the transit state of the proposed transboundary shipment.⁷⁶ The former, on the other hand, requires written consent for transit. Thus transboundary movement cannot occur until the exporting country has received the transit state's written consent.⁷⁷ In other words the right to consent cannot be waived, and applies *mutatis mutandis* to transit through non-party states.⁷⁸

Bamako also exerts more control over hazardous waste movements than Basel by expanding the definition of management beyond that of Basel's. In the definitions section of Basel⁷⁹ management is defined as -

'the collection , transport and disposal of hazardous wastes, including after-care of disposal sites.'

The Bamako definition, however, is also defined to include the 'prevention and reduction of hazardous wastes, storage' and 'treatment either for disposal or re-use.'⁸⁰ This, it is submitted, would seem to indicate Bamako's desire for the cradle-to-grave approach towards hazardous waste and its management, with the inclusion of the concept of clean production methods in the attainment of this goal. In striving to fulfil this wider definition Bamako prohibits the transportation, storage and disposal of waste unless the persons

⁷⁶ Basel article 6(4).

⁷⁷ Article 6(4).

⁷⁸ Article 7.

⁷⁹ Article 2(2).

⁸⁰ Article 1(3).

doing so are authorised to perform such operations.⁸¹ In contrast, Basel's requirements only cover transportation and disposal⁸², and one need look no further than Thor Chemicals for South Africans to realise that storage of imported waste cannot only be hazardous, but also fatal.

Signatories to Bamako become subject to the treaty when they operate facilities that generate hazardous wastes, even before the hazardous wastes are generated. Furthermore, the obligation for hazardous waste management continues after the waste is in storage, or when it has been recycled. In contrast, under Basel neither industries generating hazardous wastes, nor wastes in storage are subject to control until the wastes are placed in transboundary movement.⁸³ This further highlights the differences in approach taken by the two Conventions: Basel seems to aim for a more end-of-pipe form of regulation while Bamako tends towards a more cradle-to-grave perspective⁸⁴, an approach which has also been mooted under the guise of **Integrated Pollution Control (IPC)** in South Africa.

If a transboundary shipment of hazardous waste under Bamako cannot be completed within the terms of the waste movement contract, then the exporting country is under a duty to reimport the waste unless alternative arrangements can be made for its environmentally safe disposal within a maximum period of ninety days⁸⁵. Basel also has this ninety-day requirement but allows the states concerned to extend this deadline if they agree.⁸⁶ There is no upper limit to this 'extension by agreement' and as

⁸¹ Article 4(3)(m)(i).

⁸² Article 4(7)(a).

⁸³ Donald 437.

⁸⁴ Article 4(3)(g) clearly states that clean production methods shall not include end-of-pipe pollution controls.

⁸⁵ Article 8.

⁸⁶ Article 8.

such affords the exporting country an eleventh-hour escape route with which to try and delay their obligation to re-import. Basel also allows wastes defined as illegal traffic⁸⁷ either to be taken back by the exporting state, or to be otherwise disposed of in accordance with the provisions of the Convention. This must take place within thirty days or an agreed upon time period.⁸⁸ Bamako on the other hand states that wastes identified as illegal traffic have to be taken back by the export state within thirty days. And, as with the duty to re-import of article 8, there are no exceptions.⁸⁹

Both Conventions include similar provisions obliging parties to take appropriate measures to ensure that -

- * generation of hazardous wastes be reduced to a minimum,
- * social, technological and economic factors be taken into account,
- * their transboundary movement is similarly reduced (note - no such provision exists in Bamako),

⁸⁷ Article 9(1) of both Conventions defines a transboundary movement of hazardous waste to be illegal traffic in any of the following instances:

- (a) without proper notification to all states concerned, or
- (b) without proper consent from all states concerned, or
- (c) consent obtained through falsification, misrepresentation or fraud, or
- (d) a shipment that does not conform in a material way to the documents, or
- (e) that results in deliberate disposal of hazardous waste in direct contravention of either Convention and general principles of international law.

⁸⁸ Article 9(2).

⁸⁹ What has been suggested about Basel's 'snowballing' capabilities in article 8 can also be extended to article 9(2).

- * adequate treatment and disposal facilities for the environmentally sound management of hazardous waste be provided (note - Basel refers only to treatment while Bamako refers to both), and
- * appropriate steps should be taken by managers to prevent\minimize the consequences of managing waste, and if this is not possible, to minimize its consequences to humans and the environment.⁹⁰

Prior Informed Consent Procedure (PIC)

PIC is fundamental to both Conventions and becomes operational whenever transboundary movement of hazardous waste is proposed. The exporting state has to provide detailed information of any transboundary movement to all states concerned, including transit states.⁹¹ The importer and transit state⁹² may then deny, consent to, with or without conditions, or request additional information about the proposed waste shipment. No transboundary movement may occur until either of the aforementioned states consent in writing to the import. More importantly, however, is the fact that the exporting country has to receive evidence of a contract between the exporter and disposer of the waste concerned. Altogether, a greater onus is placed on the exporter than would have been the case under customary law .

⁹⁰ Basel article 4(2)(a)-(d)
Bamako article 4(3)(c)-(e).

⁹¹ Basel article 6
Bamako article 6.

⁹² Transit states not party to either Convention also have the right to deny, consent to, consent to with conditions or request further information about the proposed transboundary movement of hazardous waste.

If consent is given and transboundary movement has been authorized then a number of provisions have to be complied with

- * only authorized persons\corporations within the state concerned may transport, store or dispose of hazardous waste,
- * the wastes in question must be labelled, packaged and transported in accordance with generally accepted international rules and standards, and
- * transportation must be accompanied by a movement document which must contain the information set out in the relevant annexures to the Conventions.⁹³

Any contravention of the above provisions is deemed to be illegal traffic in hazardous waste⁹⁴ and party states are obliged to enact municipal legislation that makes non-compliance with such provisions an offence.⁹⁵ Where there has been illegal traffic both Conventions oblige the exporting country to re-import the waste.⁹⁶ Notwithstanding the above provisions, there is also a specific duty on the exporting country to re-import the waste where the conditions laid down by the respective Convention have not been complied with.⁹⁷ Finally, there is an obligation on states to inform all other states concerned if an

⁹³ Basel article 4(7)(a)-(c) and Annex V B
Bamako article 4(3)(m)(i)-(iii) and Annex IV B.

⁹⁴ Basel article 9(1)
Bamako article 9(1).

⁹⁵ Basel article 9(5)
Bamako article 9(1).

⁹⁶ Basel article 9(2), Bamako article 9(1). On illegal traffic and duty to re-import see n 86-88 and accompanying text *supra*.

⁹⁷ Basel article 8
Bamako article 8.

accident occurs during the transboundary movement of a shipment of waste⁹⁸.

PIC attempts to ensure that the recipients of hazardous waste have all the information they need to make an informed and reasoned consent, and to allow the status of the hazardous wastes to be accurately monitored at all times.⁹⁹ It is, however, not as comprehensive and effective as it should be¹⁰⁰, and as a procedure it could be strengthened if the following amendments were made -

- * exporting countries should have the responsibility not only to transmit notification of the proposed export to the competent authority in the importing country, but also to provide information describing its domestic disposal regulations and any special restrictions relevant to that particular shipment¹⁰¹. This, it is submitted, would not only assist the importing country in evaluating the proposed shipment with respect to its own laws, but also assist it in achieving the environmentally safe management of the waste as well.

- * if the exporting country is not satisfied with any information supplied in the notification document, by the exporter or importer of waste, the exporting country should prevent the export of the waste until it has received the necessary information required by the said document, regardless of any consent that may have been given by the importing country. This would be especially important if the exporting country and the exporter were one and the same. In such a situation transparency would be essential in order to

⁹⁸ Basel article 13(1)
Bamako article 13(1).

⁹⁹ Abrams 824.

¹⁰⁰ Ibid.

¹⁰¹ Abrams 825.

ensure that proper notification was obtained. In other words, for this suggestion to be successfully implemented it is submitted that the State should also be bound.

- * PIC should also provide the importing country with the right to withdraw its consent if new information on the waste comes to light or if the shipment does not actually correspond with the document accompanying it¹⁰².
- * the re-importation duty in the case of illegal traffic should also be applied if there has been a justifiable revocation of consent and the shipment has already taken place.

Those who criticise the Prior Informed Consent system argue that the consent procedure would be nothing more than bureaucratic red tape, as well as impractical in its application. To counter this, it is submitted that such an argument is nothing more than trying to cut as many corners as possible in search for the extra profit that would accompany an increase in the waste trade. Furthermore, if there is regrettably going to be an international trade in waste then the more environmental safeguards the better since the threats involved in such trade far outweigh the benefits, which are purely economic and extremely short-term¹⁰³.

¹⁰² A similar provision is available in declaring waste to be illegal traffic, but this is only applicable for a transboundary shipment once consent has been obtained. And, even in this case the situations under which this can occur are very specific.

¹⁰³ The greater the costs involved in the international waste trade the more incentive there should be to either stop producing waste completely by adopting cleaner production methods, or, make use of the disposal facilities at home.

Both Conventions recognise the need for transmission of necessary information in order to control the movement of waste.¹⁰⁴ Both Basel and Bamako require the transporting documents to clearly state the potential effects of the proposed movement on human health and the environment¹⁰⁵, and both require the disclosure of information about illegal shipments and accidents but their approaches are different. Bamako requires all parties 'to forward as soon as possible, all information relating to such illegal hazardous waste import activity to the Secretariat.'¹⁰⁶ In contrast, Basel merely requires that parties should 'cooperate in activities...directly and through the Secretariat...in the dissemination of information on the transboundary movement of hazardous waste...to achieve the prevention of illegal traffic.'¹⁰⁷ At first glance there may not seem to be any significant difference between these two provisions but the difference does become evident once one compares notification procedures. Both Conventions require parties to notify affected states in the event of an accident involving the shipment or disposal of hazardous waste, implying that the nation responsible for it must monitor it.¹⁰⁸ Unfortunately, Basel qualifies its requirement by stating that 'affected parties shall be informed whenever an accident comes to a party's knowledge.' Bamako on the other hand states that parties shall 'ensure that...those states are immediately informed' regardless of when it comes to their knowledge.

¹⁰⁴ Basel article 13
Bamako article 13.

¹⁰⁵ Basel article 4(2)(f)
Bamako article 4(3)(u).

¹⁰⁶ Article 4 (1)(a).

¹⁰⁷ Article 4(2)(h).

¹⁰⁸ Basel article 13(1)
Bamako article 13(1).

Finally, probably the most significant difference in the obligations to provide information, is with respect to a party's responsibility in the event of knowledge of another party's breach of the treaty.¹⁰⁹ Under Bamako if a party knows of another party's breach it has to report the breach to the Secretariat, whereas under Basel, if a party is aware of such a breach it may inform the Secretariat¹¹⁰. In other words Bamako makes such a duty mandatory while under Basel it is only discretionary.

Furthermore, parties to Bamako have to submit information on hazardous waste production within their national boundaries to the Secretariat so that it can formulate policy on an hazardous waste audit.¹¹¹ Basel contains no such provision. Party states also have to ensure that exporters in their country periodically review the possibilities of decreasing their production of hazardous waste and reducing their pollution potential.¹¹² Moreover, they also have to ensure that transboundary movement is kept to a minimum and that human health and environmental well-being are not affected by such movement.

Finally, in addition to the above, all parties must cooperate with one another and with the relevant African organizations to improve and achieve the environmentally sound management of hazardous waste.¹¹³

¹⁰⁹ Donald 440.

¹¹⁰ Basel article 19.
Bamako article 19.

¹¹¹ Article 4(3)(a)

¹¹² Article 4(3)(p)

¹¹³ Article 10

The Secretariats

The roles of the two Secretariats differ markedly.¹¹⁴ Basel's is more passive while Bamako's is more active. Both Secretariats are expected to communicate with the party-states, but Bamako's must also communicate with the Dumpwatch¹¹⁵ as well as inter-governmental and non-governmental organisations (NGOs) which may provide assistance in implementing the convention.¹¹⁶ As already mentioned above, hazardous waste generators are required to submit reports to the Bamako Secretariat disclosing the wastes they have produced in order for the Secretariat to prepare a complete hazardous waste audit.¹¹⁷ The audit not only provides basic information such as types and volumes of waste, but is also seen to be a source of policy-making in that generators are required to submit statistics, compiled by them on the effects on human health and the environment caused by the generation, transportation and disposal of hazardous wastes.¹¹⁸ Basel, unfortunately, contains no mention of an hazardous wastes audit.

¹¹⁴ Article 16 of both Conventions sets out the functions of the Secretariat.

¹¹⁵ Dumpwatch is established by article 5(4) and although its functions are not explained, its role is to act as a go-between for government and non-government organisations (NGOs). The first Dumpwatch was established by the Economic Community of West African States (ECOWAS) in 1988 by Resolution A/RES.1/6/88 25 June, 1988, to 'ensure an effective establishment of a system of surveillance to ensure that the West African sub-region is kept free of nuclear and industrial waste.' The OAU recognised the need for such a mechanism and incorporated it into Bamako via Resolution 1199. See Kwiatkowska 959 & 970.

¹¹⁶ Bamako article 16(1)(e).

¹¹⁷ Article 4(3)(a).

¹¹⁸ Article 13(3)(d). The only possible drawback to this requirement is that the information is gathered by the generator itself and not, more preferably, by an independent third-party.

Bamako also has a mandate to verify allegations of breaches of any of the obligations contained in the Convention and to submit a report to all its parties.¹¹⁹ The Basel Secretariat, on the other hand, is merely required to submit relevant information to the parties.¹²⁰ Moreover, Bamako's Secretariat aids in implementing the clean production methods advocated in the Convention in that it has to review systemically, the transfer of polluting technologies to Africa and report on this to the Conference of Parties.¹²¹ There is no similar provision in Basel.

An active Secretariat is imperative for the successful policy of disclosure of information to protect the African countries. Due to the generally limited environmental infrastructure and lack of experience in dealing with hazardous waste, of which South Africa is no exception, it is essential that such a body collects and distributes this information. Through the waste audit the Secretariat can discover problem areas and highlight the need to correct them, as well as ensure that they do not occur again in the future. One of its most important functions however, is its obligation to communicate with NGOs.¹²² This is imperative where African governments are either unable or unwilling to collect and distribute information on hazardous waste. An active Secretariat would, therefore, contribute towards the inability of many African countries to monitor the waste trade effectively.¹²³

¹¹⁹ Article 19.

¹²⁰ Ibid.

¹²¹ Article 4(3)(h).

¹²² Article 16(1)(e).

¹²³ A perfect example of this is the Koko dumping saga in Nigeria, where the government only found out about the illegal shipment, when Nigerian students in Italy, wrote to their government after reading about the export in a local Italian newspaper.

The reason why Basel rejected an active Secretariat was the expense that would have had to be incurred in establishing it. This, it is submitted, would be a significant hindrance to Bamako's Secretariat once the Convention enters into force, especially given the dire straits that most African economies are in at the present moment. The financial argument could be one of the reasons why South Africa may refrain from ratifying Bamako since, given its relative economic superiority compared with the majority of other African states, it would be required to contribute more to the funding of the Secretariat than its African neighbours. This is the same situation as the United States and the Basel Convention and may be one of the reasons why it has yet to ratify that Convention.¹²⁴

Clean Production Methods

The concept of cleaner production methods (CPM) is part of Bamako's adoption of precautionary measures towards prevention of pollution and release of substances that may have a harmful effect on humans and the environment.¹²⁵ CPM, itself, is concerned with means of production or industrial systems which avoid, or eliminate the generation of hazardous wastes and hazardous products' within the African continent.¹²⁶ This is an important principle in that even if all shipments of waste to Africa were stopped, dirty production methods, such as that of Thor Chemicals, could still be relocated with the result that production and disposal of hazardous wastes on the continent would still continue. Bamako enhances this ideal by declaring

¹²⁴ Jenny Hall interview 17 November, 1995. Attorney and South African representative to the Third Conference of the Parties in Geneva 22 September, 1994.

¹²⁵ Article 4(3)(f). The precautionary approach includes methods such as raw material selection, usage and disposal and is intended to reduce waste by looking at the products entire life cycle and not just single sections of the process.

¹²⁶ Article 1(5).

end-of-pipe solutions to be unsuited in the attainment of clean production methods.¹²⁷

In implementing these methods Bamako requires its Secretariat to systematically review the transfer of polluting technologies to Africa.¹²⁸ Unfortunately, the Secretariat has no authority to prevent such transfers other than by reporting to the Conference of Parties on any such transfers. On the other hand, although Basel does recognise the need to reduce the generation of waste to a minimum, it says nothing of clean production methods nor restricts in any way the relocation of 'dirty' industries to developing nations.¹²⁹ It nevertheless does require cooperation between nations 'in the development and implementation of new environmentally sound low-waste technologies and the improvement of existing technologies with a view to eliminating...the generation of hazardous wastes'¹³⁰, but this is further qualified in that it promotes these technologies only 'as far as practicable.'¹³¹

¹²⁷ Article 4(3)(g).

¹²⁸ Article 4(3)(h).

¹²⁹ A few months after the UK government gave Thor an ultimatum to stop its mercury chemicals production or face prosecution for unsafe worker conditions, it closed down its operations in Margate, Kent, and relocated all of its mercury compound production facilities to Cato Ridge, South Africa. At the time South Africa was not a signatory to Basel, but this is irrelevant since the Convention contains no control over such relocation. However, had South Africa been a signatory to Bamako, and the Convention was in force, Thor's relocation could have been prevented and the lives of the workers saved. For a discussion on Thor Chemicals see Chapter III *supra*.

¹³⁰ Article 10(2)(c).

¹³¹ *Ibid*.

The use and application of clean technologies is an important provision of Bamako, and something that is missing in Basel, since it acknowledges the fact that hazardous waste control policies need to address the practices that generate the wastes, as well as the wastes themselves.¹³² By adopting clean production methods Bamako formalizes Africa's pleas that, despite the need for investment and economic development, this should not take place at the expense of the environment and the well-being of the African People.

Investment for industrialisation projects is likely to come from developed nations and international organisations like the World Bank. If these investors were to include clean production methods as part of their criteria in the granting of a loan, the temptation to transfer hazardous waste-generating industries to developing countries would be greatly reduced. Furthermore, the developed nations would be able to prevent their own industries from avoiding local regulations and transferring abroad. Not only would relocation lure jobs and income away from the developed nation, but the relocating company would also gain a competitive advantage over those staying behind.

It is quite clear that cleaner production methods are nevertheless a step up the evolutionary ladder of environmentally sound management of hazardous wastes, and by adopting these methods Bamako helps contribute to increasing environmental consciousness and the ideal of a waste-free continent.

¹³² Donald 456.

Liability

This is a particularly significant difference between the two Conventions. Basel deliberately side-steps the issue and merely provides for consultation between parties to adopt 'as soon as practicable' rules and procedures governing 'liability and compensation for damage resulting from the transboundary movement and disposal of hazardous waste.'¹³³ Bamako, on the other hand confronts it head on, but in doing so liability only covers accidents resulting from the transboundary movement of waste and not its disposal.¹³⁴ Article 4(3)(b) reads as follows

'Impose strict, unlimited liability as well as joint and several liability on hazardous waste generators.'

It is uncertain as to why Bamako has only covered accidents resulting from the transboundary movement of hazardous waste and not its disposal as well. It is submitted that the provision should be expanded to do so. Nevertheless, its liability provisions will hold generators liable for damage caused by their wastes as well as simplify the enforcement of regulations governing waste shipments and discourage such shipments, unless the generator is certain that the waste will be handled in an environmentally safe manner.

Since nothing is said of the application of the provision to the legality of the shipment, it is assumed that, when read in light of Bamako's general intent, it applies equally to both legal and illegal shipments thereby nullifying any incentive to contract out of liability for an illegal shipment. It has been argued that placing liability on the generator would discourage transporters or disposers from taking adequate care¹³⁵ and although this might very well be true it is nevertheless submitted that such

¹³³ Basel article 12.

¹³⁴ Bamako article 12.

¹³⁵ Donald 451.

liability will still be an effective means of keeping hazardous waste generators in check, as well as protecting developing countries ill-equipped to deal adequately with the wastes themselves. Such strict liability, it is submitted, is justified for the two following reasons -

- * the generators themselves will have more reason to follow up on the people responsible for the shipment, treatment and disposal of the waste to ensure its environmentally safe management, and
- * enforcing strict liability on the generator for any damage caused, regardless of fault, is further incentive to adopt clean production methods as a preferable alternative.

The Lome Convention

Prior to the build-up of the Lome Convention many of the developing countries that were to be involved in its drafting came to realise that the provisions of the Basel Convention would be inadequate to protect their own special interests. Consequently they decided to draw up their own multilateral agreement to ban the importation of hazardous waste into their respective territories. In 1990 the African, Caribbean and Pacific (ACP) states and the members of the European Economic Community (EEC) signed the Lome IV Convention¹³⁶ banning the (direct or indirect) export of all hazardous wastes from EEC states to ACP states and prohibiting all ACP states from accepting such (direct or indirect) imports from any other country.¹³⁷ What makes this Convention such a strong document is

¹³⁶ Fourth ACP-EEC Lome Convention, 15 December 1989. Reprinted in Kwiatkowska 887-893. The Convention was opened for signature on 22 March 1990, and as of 20 November 1991, sixty-nine of the former European colonies and the twelve European states had ratified the Convention. For a detailed list of the ratifications see Kwiatkowska 887.

¹³⁷ Article 39(1).

the fact that not only is the export of hazardous waste prohibited to this group of countries but these countries are also prohibited from accepting for import any such waste and it is this two-way ban that sets it apart from Basel and Bamako. The only exception to this ban is where an EEC state is returning waste to its ACP state of origin where that state had initially chosen to export the waste for processing.¹³⁸

Disagreement over the extent of Basel's actual ban on hazardous waste was the reason why its implementation was delayed until 1992. Lome's ban on the other hand entered into force with immediate effect despite the fact that the remainder of the Convention had not yet taken effect. Lome IV does request its parties to make every possible effort to ratify Basel¹³⁹, and, even though there is a difference of opinion on the banning of the trade in hazardous waste between the two Conventions, there is unlikely to be any confrontation on this issue since article 11 of Basel specifically allows for other international agreements to govern the hazardous waste trade. This Convention is also important from an African perspective in that until Bamako enters into force the African nations will be able to rely on its provisions to prevent the export of waste onto the continent.

The fact that Bamako has yet to enter into force may not be as serious for the African countries as was originally thought. This is due primarily to the introduction of Decision II/12, which will be discussed in the following chapter of this paper, along with the advantages and disadvantages of imposing an hazardous waste ban.

¹³⁸ Ibid.

¹³⁹ Annex IX.

V: TO BAN OR NOT TO BAN, THAT IS THE QUESTION.

The controversy surrounding this issue is the main reason behind the OAU and other developing countries feeling betrayed by the Basel Convention. There are arguments both for and against banning the export of hazardous waste to developing countries but it is submitted that many of the disadvantages, proposed by those opposed to a ban, can be overcome by realising the serious human and environmental consequences that are inevitable from the transboundary movement of such waste. This especially is the case in developing countries where resources and the ability to deal with hazardous waste shipments are severely limited, and anybody who seems to think differently is surely motivated by greed, and the desire to avoid stringent environmental regulations in return for short-term economic gains.

Advantages of a Ban

In order for a ban on hazardous wastes to be completely effective in protecting the environment and human health, it has to adequately explain the reasons for wanting the ban in the first place, as well as inform the public of the negative effects of importing such wastes. This is especially the case in developing countries where foreign currency is essential and economic upliftment crucial. If a waste-importing nation does not have the requisite infrastructure, technical capacity and legal framework to ensure the environmentally sound handling of the imported wastes, then any form of international control of waste shipments would be little more than a smoke screen. A ban in this situation would be essential to prevent such countries from becoming targeted by unscrupulous generators, transporters and disposers as convenient dumping grounds for the disposal of their wastes.

If these so-called developing countries do not have the requisite capacity to deal with the safe handling of the wastes then it is even less likely that they will be able to evaluate the risks posed by the wastes, monitor the environment and remedy any problems caused by an accident or improper disposal. This is not only from an environmental perspective but from an economic one too. The clean-up costs of a waste disaster would be astronomical, further disabling an already cash-strapped economy. For example, the clean-up costs for the Love Canal disaster alone were \$130 million and when one considers that Guinea-Bissau was offered \$120 million a year, the equivalent of its Gross National Product, to accept consignments of foreign waste, then if these two examples were one and the same the Guinea-Bissau government would still have to have come up with another \$10 million just to 'break even'.

Given the fact that Lome IV already prohibits such imports, that Bamako needs just one more ratification for it to enter into force, and the fact that Basel can be amended to include a ban on the export of waste to developing states, the necessary instruments do, and will exist, making such a ban relatively simple to implement. Firstly, once it is clear that the wastes have not been generated in a developing country it will be just as obvious that such wastes cannot be disposed of there. Secondly, by banning waste imports this will allow the developing country's meagre resources to be made available for the regulation of local, more socially relevant, environmental problems, including the control of indigenous waste.

A simple system is particularly important for nations lacking the developed hazardous waste-handling infrastructures.¹ Furthermore, opposing the import of hazardous wastes is good politics, not only for a developing country but also for a developed country, both nationally and internationally. In supporting a ban, developed countries will be able to gain support from their developing counterparts on other global environmental issues, and, although one would like to say that politics should not be included in such a controversial topic, the fact is that it is, and as such, should be used in the best possible manner to implement a ban on the export of hazardous wastes.

Finally, and probably one of the most justifiable reasons for imposing a waste ban is that it will place full responsibility for the management of hazardous wastes on the industries that generate the waste in the developed world. This is not only morally justifiable but should also be legally justified, since the benefits associated with the production methods that inevitably generate the wastes have, for the large part, remained in the industrialized nations. It follows therefore, that if the benefits remain there, then so should the wastes. Donald² argues that benefits such as technological transfers, health care, and economic aid have accrued to the developing countries, but these have come at some expense, and Thor Chemicals is proof of this. When the technology was transferred to Cato Ridge this was because of pending legal action in the UK, and not for the benefit of the local economy. And, although it created employment opportunities for the local population, it also brought with it the life-threatening hazards of mercury contamination and environmental degradation. If these benefits are to accrue to the developing countries then the relocating company should be under an obligation to ensure that clean

¹ Donald 446.

² 447.

production methods are used to the greatest possible extent, and that the reasoning behind the relocation is not to avoid more stringent environmental regulation elsewhere. Developed countries should not be able to transfer the handling of a potentially dangerous situation to a developing country that is clearly ill-equipped to deal with it. Just as a pharmacist should not ask a drug store cashier to fill prescriptions, the developed nations should not ask the Less Developed Countries (LDCs) to handle the developed nations' hazardous wastes.³

Disadvantages of a Ban

Critics argue that an import ban is an inappropriate solution to the problems inherent in the disposal of hazardous wastes in developing countries. This, it is submitted, is not a well-founded argument, since, imposing the ban is the only realistic way to put an end to the toxic colonialistic attitudes with which many of the developed countries regard the former colonial nations. Critics of the ban say that it will deny the developing countries the opportunity of earning much-needed foreign exchange which could go towards alleviating poverty and disease, building industry and infrastructure, and helping nations become developed countries.⁴ This, it is submitted, is a partial cover-up for the real reason behind wanting to keep the exports going. And, even though the foreign exchange may help in alleviating the problems set out above, it still means that the effects of the hazardous waste trade remain externalities to the production process. Therefore, given that this argument is supposed to reveal genuine concern for the upliftment of others in need, should not these concerns be more focused on introducing cleaner production methods, preventing the production of hazardous wastes and educating developing nations about the potential risks involved in their production, instead of inducing them with foreign exchange to accept such wastes?

³ Donald 447.

⁴ Donald 447-448.

Furthermore, paying the developing countries money to import the waste is a meagre fraction of the costs involved in the developed country⁵, and, given the social and environmental costs of hazardous waste disposal it is doubtful whether the moneys paid will alleviate anything but the conscience of the hazardous waste generator. In effect then, the foreign exchange argument acts as a convenient disguise for the more astronomical costs avoided by the generator at home.

Donald argues that imposing a ban on the export of waste to developing countries will affect the efficiency and safety of hazardous waste technology in these countries, since each country would sacrifice economic efficiency by trying to develop its own disposal facilities for different types of waste.⁶ This argument does not hold water for developing countries since it has already been established that these nations generally lack the regulation, infrastructure and technical capabilities to efficiently deal with hazardous waste. Imposing a ban should only restrict the export of hazardous waste to LDCs and not the transfer of clean production technologies to help prevent such waste production.⁷

⁵ As little as \$40 per ton in some African states compared to \$1 100 per ton in the United States. See Ch I n 8-16 and accompanying text. Peter 32.

⁶ 448.

⁷ By transferring clean production technologies to LDC's, developed countries would not only receive foreign exchange for such transfer, it would also be a positive political step towards relieving the tension between themselves and the LDC's in the polarised North-South debate.

Another argument against the ban that is capable of being countered is that, by imposing a ban developing countries may be preventing the development of technologies and routines to deal with hazardous wastes that they themselves may generate.⁸ These technologies could be crucial if developing countries are to progress without destroying their environments. A simple response to this viewpoint is that if industrial technologies can be relocated to developing countries, then its difficult to understand why waste treatment technologies (or cleaner technologies for that matter) cannot also be transferred.

The final argument against a ban is the one that has raised the most controversy. Bamako bans, for any reason, the importation of hazardous wastes onto the African Continent.⁹ This includes recycling. Basel, unfortunately, makes provision for recycling.¹⁰ The controversy is that, on the one hand, a lot of hazardous waste shipments have been able to avoid regulation through sham recycling schemes, whilst on the other, materials that do not have to be disposed of can be recycled resulting in both a reduction in costs and disposal requirements. Recycling can be part of the cleaner production methods and is a more desirable option than disposal. But, the fact is that if these cleaner production methods are not adopted the recycled product can turn out to be as dirty, if not worse than the original. Thus, given past experiences, where dirty technologies have been relocated to the developing world, any proposal to relocate recycling industries would have to be approached with extreme caution, especially if they have been relocated to avoid environmental regulation elsewhere.

⁸ Donald 447.

⁹ Article 4(1).

¹⁰ Article 4(9)(b).

The only form of justification, if any, for exporting waste is that it can be treated in a more environmentally sound manner in the importing nation than it can in the country of origin. In developing countries costs are generally lower and liability, if any, is generally less stringent. Unfortunately, however, the possibility of the disposal being carried out in an environmentally sound manner is also a lot lower. This factor is essential in defending the claim to implementing a ban in that it not only highlights the inadequacies inherent in most developing countries, but also discloses the proposals made by developing countries for what they really are: superficial claims based wholly on a need to rid themselves of their own unwanted wastes.

Decision II/12

On March 25, 1994 the signatories to the Basel Convention met in Geneva at the Second Conference of the Parties¹¹ and took an unprecedented step, by adopting a consensus decision¹², for a full ban on all transboundary movements of hazardous waste from the twenty-five industrialised countries¹³ of the Organisation for Economic Cooperation and Development (OECD) to non-OECD states. All parties agreed that 'transboundary movements of hazardous wastes from OECD to non-OECD States have a high risk of not constituting an environmentally sound management of

¹¹ Second Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal. Geneva, 21-25 March, 1994. Final Decision Reprinted in Greenpeace *'Toxic Trade Update'* 7.1 (1994) 6 (hereafter referred to as Greenpeace).

¹² In international treaties the preferred means of decision making is by consensus. Voting is only carried out as a last resort.

¹³ Mexico became the twenty-fifth member in April, 1994. Becoming a member might actually have backfired on Mexico, at least from an environmental perspective, in that it may lead to an increase in wastes since the ban only prohibits exports to non-OECD states and not between OECD states.

hazardous wastes as required by the Basel Convention.'¹⁴ The ban is immediate for wastes bound for final disposal, and is effective for wastes bound for recycling or recovery from 1 January, 1998. The decision is important for two reasons -

- * it marked the end of the industrialised nations exploiting the weaker regulations and infrastructure abroad to avoid responsibility at home.
- * it was a decisive breakthrough for global environmental democracy achieved by an unwavering coalition of Northern and Southern, and Central and Eastern European countries.¹⁵

The majority of the one hundred and twenty countries in support of the total ban did prevail against the buying power of the minority opposed to the ban.¹⁶ Not one of the non-OECD countries was persuaded that hazardous waste importation was a good idea, thereby undermining the opponents' attempts to water down or even prevent the ban from materializing.

The significance of the Decision is that it finally recognised, and closed, the recycling loophole through which almost ninety percent of the hazardous waste was flowing. For the first time in international law the parties took a clear decision that hazardous waste was not a 'good' suitable for free trade, but something to be avoided, prevented and cured, like a disease or a dangerous plague.¹⁷

¹⁴ Final Decision of the Second Conference of Parties, in Greenpeace 6.

¹⁵ Greenpeace 2.

¹⁶ Ibid.

¹⁷ Ibid.

Another important divergence from the past was that the proposal used the words 'non-OECD' instead of the previously used term of 'developing countries'. This was necessary to include the former Eastern Bloc which had been increasingly targeted as a disposal site since the demise of the Iron Curtain. A ban on hazardous wastes to just developing countries would have had little effect as the traders would have simply redirected their wastes to the economically undeveloped Eastern Bloc countries.

Throughout the Conference the United States attempted to undermine the total ban. This came as a surprise to some of the delegates considering the fact that only a few weeks earlier the Clinton Administration announced that it supported a full ban on U.S. exports to all countries outside of North America. Given this unlikely turn of events, the U.S. delegation ruined a golden opportunity to establish itself, especially among the non-OECD countries, as a world leader on the environment and development.

The most important aspects of Decision II/12 are as follows:

- * exports of hazardous wastes for final disposal are prohibited. There are no exceptions, it is a total ban of all the Basel-listed hazardous wastes.
- * all transboundary shipments of hazardous wastes bound for recycling or recovery are prohibited as of 1 January, 1998. There are no exceptions to this ban either and it covers all Basel-listed hazardous wastes.
- * between 25 March, 1994 and 1 January, 1998 any non-OECD state that does not have a national hazardous waste import ban and which allows the import of such wastes for recycling or recovery until the phase-out date should inform the Secretariat that it would 'allow the import from an OECD State of hazardous wastes for recycling or recovery

operations by specifying the categories of hazardous wastes which are acceptable for import; the quantities to be imported; the specific recycling/recovery operation to be used; and the final destination/disposal of the residues which are derived from recycling/recovery operations.'¹⁸

- * the wastes covered by the decision are those defined as hazardous by the Convention and does not cover 'other wastes' listed in Annex II of the Convention such as household wastes¹⁹, nor does it include non-hazardous waste such as paper and glass or scrap metals.
- * the ban does not affect shipments of wastes from non-OECD to OECD states, between non-OECD states or OECD states.

One of the controversies surrounding the decision is that those parties who were opposed to it²⁰, claimed that the decision did not constitute an amendment to the Convention and, as such, was beyond the scope of the Convention and therefore, not legally binding. If this really is the case then why did some of them fight so hard to undermine its implementation in the first place?

¹⁸ Final Decision paragraph 3.

¹⁹ This may be a perceived weakness in the Decision in that residues from the incineration of household wastes (ie: incinerator ash) are also excluded from the ban (since they are classified as other wastes), and if these residues are of a hazardous nature then they will still be able to be exported to non-OECD countries. This loophole must be closed when countries write their implementation legislation (ie: South Africa must include this category of wastes in its general import ban).

²⁰ Countries such as Austria, Canada, Australia in their closing speeches said that it did not constitute an amendment. While countries such as the U.S., Germany and the European Commission, after the adoption of the ban stated publicly that they did not believe the Decision to be binding international law. Greenpeace 7.

Although this seems to be a last ditch effort to keep the waste trade alive there are provisions in the Convention itself which indicate that the decision is binding -

- * Basel itself requires all Parties to ban exports to countries which have themselves banned the import of hazardous waste²¹ and have informed the parties of their decision via the Secretariat.²² In this case the decision itself gives notice to all the Parties, both directly and through the Secretariat, that the non-OECD states have agreed to ban imports from OECD states. Consequently in terms of article 4(1)(a)&(b), the OECD states have an obligation to ban all exports to those countries,
- * it also requires the Parties to decide at their first meeting, on criteria to determine when there is reason to believe that hazardous wastes will not be managed in an environmentally sound manner, as required by the Convention²³,
- * Decision II/12 was proposed at the first meeting as part of those criteria. The final decision was delayed and only adopted at the second meeting, and is now part of the criteria required by article 4 for determining when hazardous wastes will be managed in an environmentally sound manner, and

²¹ Article 4(1)(a)&(b).

²² Article 13(2)(4).

²³ Article 4(2)(e).

- * the decisions taken by the Parties satisfy the requirements of becoming part of customary international law as they are accepted as general practise to implement the Convention, and are viewed by the majority of the countries to be obligatory.²⁴

The claim that the Decision was not legally binding posed a threat to its implementation, and as a result, on 22 September 1995, at the Third Conference of the Parties in Geneva, the Conference decided, by consensus, to amend the Convention so as to incorporate the wording of the Decision into the original text of the Convention.²⁵ At the Conference, the Parties decided to adopt the following amendment to the Convention: to insert a new preambular paragraph 7 recognising that 'transboundary movements of hazardous waste, especially to developing countries, have a high risk of not constituting an environmentally sound management of hazardous wastes as required by this Convention.'²⁶ Furthermore, the amendment also inserts a new article 4A -

1. Each Party listed in Annex VII²⁷ shall prohibit all transboundary movements of hazardous wastes which are destined for operations according to Annex IV A²⁸, to States not listed in Annex VII.

²⁴ Greenpeace 8.

²⁵ Interview with Jenny Hall, attorney and South African representative to the Conference, Johannesburg 17 November, 1995 (hereafter referred to as Jenny Hall Interview).

²⁶ Draft Decision III/... Amendment to the Basel Convention paragraph 6. See Annex A of this document.

²⁷ This annex contains a list of all Parties and other states which are members of the OECD and the EEC.

²⁸ This annex contains a list of operations 'which do not lead to the possibility of resource recovery, recycling, reclamation, direct re-use or alternative uses.'

2. Each Party listed in Annex VII shall phase out by 31 December, and prohibit as of that date, all transboundary movement of hazardous wastes under Article 1(i)(a)²⁹ of the Convention which are destined for operations according to Annex IV B.³⁰ Such transboundary movement shall not be prohibited unless the wastes in question are characterised as hazardous under the Convention.

Unfortunately some states, including Australia, Korea and the United States opposed the decision to amend the Convention. This brought about a simultaneous decision to recognise the sovereign right of a state to enter into an article 11 agreement in terms of which they may import hazardous waste in accordance with guidelines to be established by the Technical Working Group.³¹ This again seems to be yet another attempt by those countries unwilling to acknowledge and accept responsibility for their own waste to continue exploiting developing countries, by using political reasoning to twist the concept of sovereignty to suit their own needs, while at the same time disregarding the rights of others. The article 11 agreement however, may be combatted by the fact that one of the primary provisions of the Convention is to prohibit the export of wastes to nations that have banned its import. Thus, if a nation was to ban the import of hazardous wastes, as the OECD did with Decision II/12, then an article 11 agreement cannot be used to reverse such a decision.

²⁹ Wastes that belong to Annex I unless they do not possess any of the characteristics listed in Annex III.

³⁰ This annex contains a list of all operations which 'may lead to resource recovery, recycling, reclamation, direct re-use or alternative uses.'

³¹ Draft Decision III paragraph 3; Jenny Hall Interview op cit n 24.

The most simple, yet obvious, strategy aimed at undermining Decision II/12 is by leaving the ban alone and trying to redefine hazardous wastes.³² The industry-backed attempts on this idea have taken one of two forms -

- * re-defining waste bound for recycling as non-waste³³, and
- * de-listing certain hazardous wastes from Basel's definitions, particularly for recycling.³⁴

Greenpeace claims that it has uncovered de-listing programme, in the form of an OECD decision granting industry a de-listing of certain categories of Basel-listed hazardous wastes in a 'green list', part of a listing system of wastes bound for recycling. This green-list contains known hazardous wastes such as lead and cadmium, which are allowed for export between OECD states with no environmental controls whatsoever. Greenpeace claims further that this is only the beginning of a greater strategy aimed at applying the 'green-list' to non-OECD states, in order to continue the export of hazardous wastes to these states, without any form of control, and in complete defiance of the Basel ban as well. It is obvious, however, that these definitions are incompatible with those of Basel and that they only apply to

³² A further, but unlikely, possibility would be to invite non-OECD states to join the OECD, thereby circumventing a ban that only seeks to prohibit waste exports between non-OECD states. See n 13 supra and the possibility of this happening to Mexico.

³³ The Union of Industrial and Employers Confederations of Europe (UNICE) have proposed to the EU and certain member states that recyclable wastes, no matter how hazardous, fall out of the scope of environmental regulation as they are part of the production family, which they define as 'anything that has commercial value'. Greenpeace 9. From an environmental perspective this would be lunacy in that one would not have to worry about the possibility of a loophole as this would provide waste traders with a justified route, saying that what they were trading had commercial value.

³⁴ Greenpeace 9.

OECD countries since the Convention makes it clear that its definitions are the only ones to be used with respect to non-OECD countries.³⁵

The previous discussion has focused on the controversies surrounding a proposed ban, as well as the implementation of Decision II\12. This decision, it is submitted, will be of extreme importance in regulating the future trade in hazardous waste. It will also be significant in helping a country to formulate its future policy and municipal legislation towards the regulation of hazardous waste. This will certainly be the case with respect to South Africa, given its present fragmented approach to not only hazardous waste, but also to environmental law in general. Consequently, it is to South Africa's policy and legislation governing hazardous waste that the attention of this paper will now turn.

³⁵ See n 27-29 *supra*, and accompanying text.

VI: SOUTH AFRICA.

'I wish to add that since the end of 1990 South Africa has accepted no imports of dangerous waste products.'¹

Unfortunately, this is only a half-truth and perhaps not even that. It is possible that it is a half-truth in that theoretically Thor was not importing hazardous wastes as it had been exempted from the apparent waste ban imposed by the South African government² in 1990, since it was a *bona fide* manufacturing industry that had a right to import waste. From this it is clear that this so-called ban was riddled with loopholes, and in fact, the Ministry of Environmental Affairs said that other companies could be granted the right to import hazardous waste if they intended to extract raw materials from it, and if they complied with South Africa's water pollution and industrial safety regulations.³

The import of hazardous waste continued well beyond 1990. In fact on February 17, 1994, Earthlife Africa revealed that one hundred and sixty barrels of mercury waste were to be imported from Borden Chemicals and Plastics (USA), one of Thor's major suppliers. The shipment was due to arrive in Durban on 21 February 1994, however, due to protests by Greenpeace and other environmental groups in both Louisiana and South Africa, Borden Chemicals was forced to recall the shipment to the United States.⁴ The success in warding off the unwanted waste was rounded off by the Managing Director of Thor stating that it

¹ Interview with Dr. Colin Cameron, Director-General of the Department of Environmental Affairs and Tourism, in RSA Review/RSA-Oorsig Vol 7 No.8 October 1994 20, 23.

² This ban was apparently imposed by a Ministerial Proclamation in September 1990. However, it was discovered that this Proclamation has never actually been gazetted.

³ Lukey et al 170.

⁴ Earthlife 11.

would cease hazardous waste imports and get out of the mercury industry within two years.⁵ This promise, however, remains to be realised.

Thor Chemicals was not the final episode of what can only be described as the government's worst waste nightmare. In August 1995, a planned import of fifty tons of cupric arsenic from Finland, via Durban into South Africa, was thwarted by the Environmental Justice Networking Forum (EJNF), and, to add insult to injury, not only was the import permit printed on a Department of Environmental Affairs and Tourism (DEA&T) letterhead, but the Department's Director-General Colin Cameron also admitted that he knew of the import⁶, which was in breach of Minister de Villiers' stated policy that South Africa would not accept any hazardous waste.⁷ Originally only an in-house inquiry was established to investigate the circumstances surrounding the foiled shipment even though there had been calls by the House of Assembly's Portfolio Committee for Environmental issues to initiate a wide-ranging inquiry into all recent shipments of hazardous wastes into the country, and the role that consultants had played in the handling of these matters.⁸ Apparently the reason for choosing an in-house investigation instead of an independent inquiry was that the latter would have been too expensive.⁹ The controversy was based on evidence suggesting that private consultants had obtained administrative powers to import the shipment from Finland. Fortunately, however, the committee was converted into a commission following a statement by the committee's chairperson, Pretoria Regional Court President Jan Venter, that organisations and witnesses

⁵ Earthlife 36.

⁶ He, however, changed his tune, once both the Minister and Deputy-Minister claimed they knew nothing of the planned importation. The Star 22 September, 1995.

⁷ Ibid.

⁸ Weekly Mail and Guardian 22 September, 1995.

⁹ Ibid.

were unwilling to testify.¹⁰ The advantage of the investigation being converted into a full commission was that this would authorise Venter to hear evidence under oath and allow for proper cross-examination.

South Africa has in the past, in relation to the import of toxic wastes, been described as the 'Achilles Heel of Africa'¹¹, based largely on the fact that it legally accepted imported wastes. The remainder of the continent's countries have adopted a series of resolutions and conventions banning the import of hazardous wastes, including those wastes intended for recycling. South Africa finally ratified the Basel Convention in May, 1994 and there has also been considerable lobbying for it to become the tenth country to ratify Bamako so that it may finally enter into force.¹² This, however, will not make much difference unless South Africa is able to formulate effective policy governing all aspects of hazardous waste and enacting implementing legislation binding South Africa to the provisions of Basel and, if necessary, Bamako.

South Africa produces approximately four hundred and sixty million tons of waste annually, and of that, two million tons is toxic.¹³ This may sound completely insignificant when compared to the total global production of between three hundred and four hundred million tons.¹⁴ But, the truth is that South Africa's inability to deal with its own hazardous wastes completely overshadows the fact that it accounts for only half a percent of the world's total amount. Consequently, before one even vaguely

¹⁰ The Star 7 November, 1995

¹¹ Earthlife 28.

¹² In terms of article 25 of Bamako, the Convention will enter into force on the ninetieth day after its tenth ratification.

¹³ Muniviro Vol 12 No.1 February, 1995 8.

¹⁴ Marbury 255.

considers any form of justification to import more one should focus one's attention on reducing South Africa's waste and even try to prevent it.

South African Law and Policy

There is currently no legislation fully regulating hazardous wastes in South Africa, in fact, at least thirty-seven Acts of Parliament, sixteen Provincial Ordinances and numerous local authority by-laws¹⁵ attempt to do so. This problem is further compounded by the fact that several government departments have jurisdiction over not only different areas of hazardous waste¹⁶ but also environmental law in general, with a possible result being that one department may not know what the other is doing.

One of the most significant of the plethora of legislation governing waste in South Africa is the Environment Conservation Act (ECA)¹⁷. In terms of section 1 of the Act, waste is defined as:

'any matter whether gaseous, liquid or solid, or any combination thereof originating from any residential, commercial or industrial or agricultural area identified by the Minister as an undesirable or superfluous by-product, emission, residue or remainder of any process or activity'.¹⁸

¹⁵ Jenny Hall, attorney, Lecture to the ANC Standing Committee on the Proposed Policy on Hazardous Waste, May 1995 (hereafter referred to as ANC Standing Committee Lecture).

¹⁶ For instance section 20 Environment Conservation Act 73/1989 makes the Minister of Water Affairs and Forestry responsible for the issuing of permits for waste disposal sites, yet the Act as a whole is administered by the Minister of Environmental Affairs and Tourism.

¹⁷ No. 73 of 1989.

¹⁸ Minor confusion exists here in that in terms of s 1 of the ECA 'Minister' means the Minister of Environmental Affairs and Tourism, however in terms of section 20 the Minister of Water

This definition does not include hazardous waste and is somewhat watered down in that the Minister's identification of waste in GN 1986¹⁹ excludes the following categories of waste

- * water used for industrial purposes or any effluent produced by or resulting from such use (which is discharged in compliance with the provisions of section 21(1) of the Water Act 54/156),
- * any matter discharge into a septic tank or drain sewerage system,
- * building rubble used for filling or levelling purposes,
- * any radioactive substance discarded (in compliance with the provisions of the Nuclear Energy Act 92/1982),

Affairs and Forestry is responsible for the regulation and control of all waste disposal activities. Furthermore, in the section itself reference is made to both the 'Minister of Water Affairs & Forestry', as well as just the 'Minister'. So does this mean that the Minister of Water Affairs & Forestry would first have to confirm the identification of a waste with the Minister of Environmental Affairs & Tourism before setting out regulations for its control and disposal. If so, this is unnecessary bureaucracy that can so easily be avoided by clearly defining and streamlining the roles to be played by the relevant players. Consequently, it is submitted that waste management and disposal should only vest with the Department of Environmental Affairs & Tourism and not with the Department of Water Affairs & Forestry. The only reasoning, it is submitted, for having it under the auspices of the latter Department in the first place is the potential for water pollution resulting from mismanagement of a waste disposal site. This, however, is only one facet of the entire waste cycle, and considering the fact that Policy on Hazardous Waste Management was issued by the Department of Environmental Affairs & Tourism, there has to be uniformity in future happenings governing waste to avoid any confusion created by the duplication of Ministerial, or other powers.

¹⁹ GN 12703, 24 August, 1990.

- * any minerals, tailings, waste rock or slimes produced by or resulting from activities at a mine or works (as defined in section 1 of the Mines and Works Act 27/1956), and
- * ash produced by or resulting from activities at an undertaking for the generation of electricity (under the provisions of the Electricity Act 41/1987).²⁰

Furthermore, the Policy on Hazardous Waste Management²¹ defines waste to be -

'any material, whether solid, liquid or gaseous which is

- (i) to be discarded, discharged or emitted in any form, with or without means of control, treatment, reduction or compositional change;
- (ii) no longer to be used for its original purpose and which is likely to be stored or accumulated for three months or longer, with or without the eventual intention of treatment or disposing, discharging or emitting it;

²⁰ This ash can be one of two types, either the fine dust ash captured by the precipitators in the smoke stacks or a more solid form of ash known as boiler bottom ash that is produced in the generation process itself. The ash is collected and combined to form an ash dump which is stored on site for the duration of the electricity generator's lifespan. Effectively then, the ash is merely controlled before trying to repatriate it as part of the natural environment. If this is not entirely possible the thinner dust ash will be extracted and used as an additive in the construction of concrete or breeze blocks. This could have uncertain complications depending on the toxicity of the ash and its possible classification as a secondary raw material. Pers comm. J.D. Mc Cann, Internal Consultant: Eskom Generation Operational Engineering, 19 December, 1995.

²¹ GN 15987 30 September, 1994.

- (iii) sent off site for reuse, recycling, regeneration, alienating, treatment or disposal, or from which matter such processes will be extracted.'

Thus any waste that may escape the 'net' of the ECA, if not subject to regulation in terms of 'other legislation', is not subject to any form of regulation at all.²² Section 20 of the Act provides that waste disposal activities will be subject to the control of the Minister of Water Affairs, unless they are subject to the provisions of other legislation. And, although the Act may form a framework on which waste management in general can be based, by bringing the discordant pieces of legislation together, it has yet to make any real impact. Several reasons for this can be identified -

- * although the hazardous waste policy provided for by section 2 has been formulated²³ it seems too general in terms and does not take matters of regulation much further.²⁴
- * sections 22 and 23 empower the Minister to declare and prohibit any activity that may have a detrimental effect on the environment. Consequently the Minister is in a position to declare the import, export or generation of hazardous waste to be such an activity, thereby prohibiting any of the above from taking place. The potential for the regulation of hazardous waste under the ECA therefore exists but unfortunately no such activities have yet been

²² Peckham 90.

²³ Policy on Hazardous Waste Management in RG 15987 30 September, 1994. See discussion and criticisms infra.

²⁴ B. Peckham 'Some Thoughts on the Regulation of Hazardous Waste Disposal in South Africa' (1994) 1 *South African Journal of Environmental Law and Policy* 1 85, 88 (hereafter referred to as Peckham).

designated.²⁵

- * the regulations provided for in terms of section 26 with respect to waste disposal have also not been promulgated.²⁶ The potential advantages of these are self-evident.
- * as already mentioned the ECA is supposed to be a framework piece of legislation intended to combine and coordinate the numerous Acts, yet the authorities have decided on specific legislation to regulate hazardous waste.²⁷

Even though the above factors can be seen as reasons for inhibiting the development of the ECA it still has the potential to become the framework legislation that it was intended to be. However, this is further overshadowed by attempts to propose completely new legislation. This unfortunately, will create further areas of duplication and confusion. It is obvious, therefore, that the varying definitions of waste, exclusions and lack of a single cohesive piece of legislation governing waste pose a threat of untelling environmental harm. To understand the extent of the danger and confusion that these lacunae present, it is necessary to briefly examine the provisions of other relevant and applicable legislation.

- One of the most important Acts is the Hazardous Substances Act²⁸ which deals primarily with the control of hazardous substances and not hazardous wastes per se. The Act is administered by the Department of National Health and Population Development by means of declaring products to fall within one of four specified categories depending on their composition. In terms of the Act,

²⁵ Peckham 89 n 12.

²⁶ Ibid.

²⁷ Op cit n 14.

²⁸ No. 15 of 1973.

the Minister is empowered to make regulations regarding the importation, transportation, dumping and other disposal of any hazardous substances²⁹ as well as aspects governing the manufacture, packaging, storage and disposal of hazardous substances.³⁰ The Act does provide for the regulation of transportation and storage of hazardous substances³¹, but the effectiveness of these regulations is hampered by the fact that they only apply to containers in excess of five hundred litres thereby excluding smaller containers from any form of regulation whatsoever. The Act also provides that regulations governing the disposal of hazardous substances may also be made. This, however, has not occurred.³²

, The Occupational Health and Safety Act³³, although not conventionally regarded as an environmental statute, now imposes a duty on employers to provide and maintain as far as reasonably practicable, a working environment that is safe and without risk to health of the employees and also to provide that persons, other than those employed, who may be directly affected by the activities of the employer are not exposed to hazards to their health or safety.³⁴ From this explanation it can be noted that the Act places great emphasis on the health and safety, of not only the employees, but also anybody that may be affected by the

²⁹ Section 29(1)(a).

³⁰ Section 29(1)(b).

³¹ GN R 73 11 January, 1985.

³² The one exception to this is the regulations contained in GN 452 & 453 25 March 1977; GN 2777 & 2778 21 December 1984; GN R72 11 January 1985 which states that containers used for toxic substances, when disposed of on a dump must be flattened so as to be unusable, or, if reusable must be securely closed and only reused for the same substance. Jenny Hall interview, Ch V n 24 *supra*.

³³ No. 85 of 1993.

³⁴ Jenny Hall Interview. Furthermore see Draft General Health and Safety Regulations R24 GN 16222, 20 January, 1995; Regulations for Hazardous Chemical Substances R1179 GN 16956, 25 August, 1995.

employer's activities. And, appropriately, the onus is thus on the employer to ensure that its operations are conducted in accordance with sound environmental practises.

The above two Acts are not the only Acts exercising control, in one form or other, over the regulation of hazardous materials but they are, it is submitted, probably the most relevant. The following is a list of other pieces of South African legislation governing the topic -

- * Atmospheric Pollution Prevention Act³⁵ - if the substance or waste is an hazardous or offensive gas then it will fall within the ambit of this Act, which is administered by the Department of National Health and Population Development.
- * Water Act³⁶ - if the substance or waste is an effluent or water then it is subject to the provision of this Act, which is administered by the Department of Water Affairs and Forestry.
- * Dumping at Sea Control Act³⁷ - if a substance or waste is identified on the basis of chemical composition contained in schedules to the Act, then it will be subject to specific regulations prohibiting its dumping at sea.
- * Nuclear Energy Act³⁸ - if the substance or waste is radioactive nuclide or any other nuclear material then it falls within the ambit of this Act, which is administered by the Department of Mineral and Energy Affairs.

³⁵ No. 45 of 1965.

³⁶ No. 54 of 1956. A new Act is, however, in the process of being promulgated.

³⁷ No. 73 of 1980.

³⁸ No. 131 of 1993.

- * Minerals Act³⁹ - if the substance or waste is a result of mining operations then it falls under the provisions of this Act which is also administered by the Department of Mineral and Energy Affairs.
- * Health Act⁴⁰ - if the substance or waste poses a health threat or represents a nuisance to the people in the surrounding area then it will fall within the ambit of this Act, which is Administered by the Department of National Health and Population Development.

As one can see the above list is rather expansive, and comprises several different government departments, which may be one of the reasons for explaining the confusion surrounding the regulation of hazardous wastes in South Africa. It is also quite possible that given the type of exclusions in the existing legislation, that a specific hazardous substance or waste could fall through the net completely unregulated. It is suggested, therefore, that a comprehensive policy on hazardous waste management should address the problems of fragmentation and legislative indecision discussed above, as well as provide a context for interpreting existing laws and for drafting future ones.

³⁹ No. 50 of 1991.

⁴⁰ No. 63 of 1977.

Hazardous Waste Management Policy

On 14 May, 1993 the Department of Environment Affairs published its Proposed Policy on Global Environmental Change which stated that there was a possibility of the transference of non-green industry⁴¹ and that there would be little chance of South Africa being able to institute energy saving mechanisms until it was economically developed. 1994 saw the ushering in of a new government and with it a Policy on Hazardous Waste Management which was published on 30 September that same year⁴², but it was not as successful as it had hoped, coming under fire from all quarters including trade unions, non government organisations (NGOs) and community based organisations (CBOs).⁴³ Nevertheless, the Policy was documented for the following reasons -

- * only twenty percent of the seven hundred chemicals used by industry have been tested,
- * thirty three percent of the chemicals have not been listed at all,
- * regulations governing the transportation of hazardous substances only covers approximately three hundred chemicals and are only applicable to containers in excess of five hundred litres,

⁴¹ This is hardly surprising given the fact that the previous government had mandated Thor's import of mercury waste as a raw material.

⁴² GN 15987. During November, 1994, the Kwazulu-Natal Provincial Legislature's Portfolio Committee on Conservation held public hearings to ascertain opinion on the proposed policy. After the hearings the Committee unanimously rejected the plans to import hazardous waste into South Africa, and submitted a detailed report to the Department of Environmental Affairs & Tourism in this regard. Monitor October, 1995 4.

⁴³ Jenny Hall Interview.

- * there is little general awareness about the dangers and effects of hazardous waste, and
- * there are strong arguments for the contention that ad hoc legislation cannot adequately deal with the problem of hazardous waste effectively and efficiently, thereby accepting that a policy on hazardous waste was imperative.⁴⁴

Provision for the Policy was made in terms of section 2 of the ECA, which authorises the Minister to determine general policy with a view to 'the protection of the environment against disturbance, deterioration, defacement, poisoning or destruction as a result of human-made structures, installation processes or products or human activities.' It envisages the prevention of pollution by means of a comprehensive policy, appropriate legislation, the setting of standards, application of the **Best Practicable Environmental Option** (BPEO), fostering of positive attitudes and participation in the international sphere.⁴⁵ It also proposes a national strategy for integrated waste management which will include the concepts of accountability, responsibility, minimising wastes and reuse. Other important principles specified in the Policy include -

- * no bad legacy principle - the present generation should not leave future generations with a bad legacy of community health and contaminated sites,

⁴⁴ ANC Standing Committee Lecture.

⁴⁵ Ibid.

- * polluter pays principle - the polluter should pay for the negative environmental consequences of its actions and this should be implemented in practise by recovering from the polluter the direct costs associated with its pollution,⁴⁶
- * self regulation - experience has shown that self regulation under the Resource Conservation and Recovery Act (RCRA) in the United States has not always worked and at times has allowed generators to avoid regulation by falsifying their claims.⁴⁷ Consequently it is submitted that this would not be the correct route to take in South Africa,
- * cradle-to-grave principle - the regulatory system should provide for a holistic approach to the entire waste cycle, beginning with where the generation of waste is first contemplated and ending with its recycling, destruction or safe disposal,⁴⁸
- * precautionary principle - hazardous waste of an unknown composition or hazard should be treated as if it is of the most hazardous class,

⁴⁶ One of the problems of being contaminated or poisoned by hazardous waste is that such effects are not always immediately visible and as such cannot be traced directly back to the polluter. On the other hand the question would be where to draw the line between what constitutes a direct cost and an indirect cost.

⁴⁷ See B.Needleman 'Hazardous Waste Recycling Under the Resource Conservation and Recovery Act: Problems and Potential Solutions' (1994) 24 *Environmental Law* 971.

⁴⁸ This is the approach adopted by Bamako but not by Basel, yet South Africa ratified the latter. It does, however, fall short of Bamako in that this principle should impose responsibility in perpetuity on the generator. It allows for ownership and responsibility of the wastes to pass from one person to another, which unfortunately, it is submitted, merely encourages the trade in waste.

- * pro-active approach - advocates a management system that will anticipate adverse impacts on human health, safety and the environment,
- * participation and consultation - participation of all interested and affected parties in the formulation of government policy, which is essential for Integrated Environmental Management (IEM),
- * remediation and sanction - the State should be empowered to clean up waste sites and other sources of pollution that represent a hazard to human health, safety and the environment. This goes without saying, but it is also submitted that the State be held accountable for failure to do so, or even to act timeously in preventing an accident from occurring. Furthermore, nothing is said of the strictness of the sanctions to be imposed, be they penal or pecuniary, and
- * pecuniary provisions - this requires generators, transporters, brokers and operators under certain circumstances (only) to cover the liability associated with rehabilitation and closure of facilities. As it stands, it is submitted that this contradicts the polluter pays principle discussed above and should consequently be extended to cover all circumstances and not just certain ones as specified.

Apart from what has been considered above, the Policy has been criticised for numerous reasons. Firstly, there was little or no participation by workers, NGOs and CBOs, which flies in the face of the principle of participation and consultation embodied in the Policy⁴⁹, and therefore does not correspond with the intention of the Reconstruction and Development Programme (RDP) to make legislation transparent and accessible. Secondly, the Policy makes express provision for the import of hazardous waste⁵⁰ and does so by basing its arguments on two reasons -

- * South Africa has the resources and infrastructure to develop treatment and disposal facilities to a high standard. Responding to this claim, it seems hard to believe, considering the catastrophe of Thor which admitted that for three years it had stockpiled waste and not made any product from recovered mercury.⁵¹ Furthermore, the Policy states that its main aim is to protect human health and safety as well as the environment. How can this even be considered when, at the same time, it endorses the import of hazardous waste? The argument further states that neighbouring countries might not be able to treat and dispose of hazardous waste to the same standard that South Africa can, and will therefore resort to practices that will impact adversely on the regional environment. It then proposes to make South Africa's facilities available to these other countries. Firstly, this assumes that South Africa has higher standard facilities, which from past experience, it is evident that it may not. Secondly, it

⁴⁹ This is only a draft policy and therefore does allow for public participation, but only once the draft has been completed, and not before. Whether this is the correct way to go about it is debatable. Consequently, it is submitted that comment and participation should be encouraged in the drafting of any future policy and not afterwards.

⁵⁰ Paragraph 4.7.

⁵¹ This so-called state-of-the-art technology claimed the lives of two of Thor's workers.

encourages the relocation to the sub-continent of dirty industries instead of advocating clean production methods, and finally, since there is no guarantee that South Africa's neighbours will not import hazardous wastes themselves, the Policy should have made provision for the transfer of expertise in waste management to help them manage their own waste rather than practically volunteering South Africa to accept it instead.⁵²

- * By-products serving as raw materials for other purposes are classified as wastes in terms of Basel. A blanket ban would therefore jeopardise and impact adversely on present economic and industrial activities, and would also affect prosperity and employment. Furthermore, no environmental benefits would accrue by restricting import of goods intended for re-use. The argument ends by stating that a ban should only apply to wastes intended for final disposal. For a start, this would be in direct contravention of Decision II/12.⁵³ Secondly, any claim of such a ban affecting prosperity and employment can easily be countered by arguing that by introducing clean production methods one would not only increase the concept of prosperity as a whole, but also provide new possibilities for employment. By implementing this new technology one would not only have to train people to operate it, but also train people how to teach those to operate it.

The policy also proposes a sub-region in which there will be no ban on the trade in hazardous waste to and from South Africa. It is not clear from the Policy who will choose the region, how it will be established and what will happen to the people living in that region.⁵⁴ Furthermore, due to the vagueness of this entire

⁵² Monitor, October 1995 3.

⁵³ See Ch 5 n 11-34 and accompanying text *supra*.

⁵⁴ ANC Standing Committee Lecture.

proposal, would this allow a loophole to develop, through which waste could travel, allowing a country outside the sub-region to dump their wastes in the sub-region and then arrange for it to be imported from there, or will this be prohibited?

A third criticism of the Policy is that no mention is made of worker protection, this is a serious problem given the events surrounding the controversy of Thor Chemicals. Any future proposal for the management of hazardous wastes, or amendment to this Policy should be obligated to take note of the concerns of workers given the potential hazards that affect their daily lives. Guidance should be taken from the Occupational Health and Safety Act⁵⁵ and the regulations promulgated thereunder.⁵⁶

Fourthly, section 29 of the Constitution⁵⁷ guarantees a person the right to an environment that is not detrimental to his or her health or well-being. This in itself could justify opposing the implementation of the Policy in that allowing the import of hazardous wastes could be detrimental to a person's health or well-being, thereby constituting a breach of a fundamental

⁵⁵ No. 85 of 1993.

⁵⁶ See n 33 & 34 and accompanying text.

⁵⁷ Act 200 of 1993. section 23 of the Working Draft of the Constitution (22 November 1995) provides for the following: Everyone has the right:

- (a) to an environment that is not detrimental to their well-being;
- (b) to have their environment protected through reasonable legislative and other measures designed to
 - (i) prevent pollution and environmental degradation;
 - (ii) promote conservation; and
 - (iii) secure sustainable development and use of natural resources.

This is a stronger right than the existing one in that through subsection (b) it obliges the state to take an active role in protecting the environment and not only focuses on the environment from a human perspective. It is submitted that if this right were in force today it would form a legitimate claim against the implementation of the Policy.

right.

A claim could lie, depending on the application of the limitations clause⁵⁸, nevertheless section 7(4)(a) states the following:

'When an infringement of or threat to any right entrenched in this Chapter is alleged, any person referred to in paragraph (b) shall be entitled to apply to a competent court of law for appropriate relief, which may include a declaration of rights.'⁵⁹

Furthermore, although the Policy genuinely seeks to acknowledge the importance of the environment with respect to the formulation of the Policy, all of these acknowledgements are qualified by economic considerations. This qualification is carried throughout the document, and it would appear that it is given preference in light of the fact that South Africa is a developing country. This is understandable, given the country's economic status, as long as these concerns are not detrimental to the environment. Short-term economic gains should never be considered ahead of long-term prosperity and well-being.

The Policy does not deal with all the facets of waste including collection and disposal and lacks any real focus on avoidance, reuse and recycling of waste.⁶⁰ Finally, an important observation to make about the implementation of the Policy is that day-to-day management of waste appears to be handled by local authorities. This could be cause for concern considering that many of the local authorities may not have the necessary

⁵⁸ Section 33 Act 200/1993.

⁵⁹ The liberalisation of the *locus standi* requirement was recently upheld in the Constitutional Court decision of *Van Huyssteen NO and Others v Minister of Environmental Affairs and Tourism and Others* 1995 (9) BCLR 1191 (c).

⁶⁰ ANC Standing Committee Lecture.

expertise to implement these policies effectively.⁶¹

This Draft Policy has not been made final. However, the Deputy Minister of the Department of Environmental Affairs and Tourism, Bantu Holomisa, convened the Consultative Conference on National Environmental Policy (CONNEP) on 17 & 18 August, 1995 with the aim of drafting a national environmental policy that will have the support of NGO's, CBO's, labour, industry and the South African public in general.⁶² An important statement came out of CONNEP when Minister de Villiers said that there would be a complete ban on hazardous waste.⁶³ If this is the case then the possibility of the Draft Policy ever being implemented is somewhat slim. According to the timetable agreed upon at CONNEP, a White Paper should be produced by mid-1996.⁶⁴ Included in the White Paper, no doubt, will be a definition of hazardous waste, to which the attention of this chapter will now turn.

Trying to Define Hazardous Waste

Trying to define hazardous waste has been the source of many a controversy throughout the world. What is of serious concern, is that until very recently South Africa had no formal definition on the subject at all. This is coupled with the fact that there is no comprehensive piece of legislation governing the topic at present either, and, although the ECA defines waste, it does not define hazardous waste.⁶⁵ Its definition is contained in a number of documents including the Policy on Hazardous Waste

⁶¹ Ibid.

⁶² Jenny Hall Interview.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Peckham 97.

Management, and Document Two of the Waste Management Series⁶⁶ published by the Department of Water Affairs and Forestry. However, it has its origins in a 1992 CSIR report entitled 'Hazardous Waste in South Africa'⁶⁷ and is defined as -

'any waste that directly or indirectly represents a threat to human health or the environment by introducing one or more of the following risks:

- * explosion or fire,
- * infections, pathogens, parasites or their vectors,
- * chemical instability, reaction or corrosion,
- * acute or chronic toxicity,
- * cancer, mutations or birth defects
- * toxicity, or damage to the ecosystems or natural resources,
- * accumulation in biological foodchains, persistence in the environment, or multiple effects;

so that it requires special attention and cannot be released into the environment or be added to sewage or be stored in a situation which is either open to air or from which aqueous leachate could emanate.'⁶⁸

⁶⁶ Department of Water Affairs and Forestry, 1994. Waste Management Series. Minimum Requirements for the Handling and Disposal of Hazardous Waste.

⁶⁷ Department of Environment Affairs, 1992. Hazardous Waste in South Africa. R.G. Noble (Ed).

⁶⁸ Once a waste has been classified as hazardous it will be necessary to differentiate it from other waste, and, for the time being, classified according to the classes in SABS Code 0228, which corresponds directly with Annex III of the Basel Convention.

An important qualification of this definition is that it not only depends on the effects of the waste on humans but also recognises, as equally important, its effects on the environment. This latter point is important since a definition which does not take into account the relationship between the material and the environment into which it will enter will be too broad. It will capture things that are not hazardous and will direct scarce resources towards making safe things that were not dangerous to start with.⁶⁹ Consequently whether a waste is hazardous will depend on its physical, chemical and infectious characteristics, and on its quantity and concentration⁷⁰ in the environment.

This is an extremely comprehensive but broad definition and as a result some more specific terms need to be introduced to make it practically meaningful to officials, waste generators and operators.⁷¹ Furthermore, and of particular concern, is the fact that there is no control of medical waste⁷² in South Africa. To

⁶⁹ H. Bradby (Ed) *'Dirty Words: Writings on the History and Culture of Pollution'* (1990) 126.

⁷⁰ British Medical Association *'Hazardous Waste & Human Health'* (1991) IX (hereafter referred to as British Medical Association).

⁷¹ Peckham 99.

⁷² There are two ways in which medical wastes may present a hazard, infectivity and toxicity. Infectious wastes include human tissue, body fluids, swabs, dressings and needles. Toxic wastes include drugs and chemicals used in clinical practice. Waste drugs are those that have been returned by hospital wards, spilled, outdated, contaminated, or no longer required.

Disposal of medical wastes was given widespread publicity in the U.K. when hospital wastes destined for incineration were found on landfill sites, and it is becoming more of an issue with the increase in single-use medical products. This has resulted in an increase in the volume of (plastic) wastes to be incinerated and has both a positive and negative result. One the positive side one perceived hazard is eliminated - possible infection from the reuse of instruments - but replaced by another - a possible increase in air pollution as a result of the greater volume of waste to be incinerated. British Medical Association 32-33.

counter this, medical waste should be recognised as a form of hazardous waste as it is in Both Basel and Bamako, and throughout the world. This would ensure that hospitals, clinics, dental practises, veterinary clinics and the like become registered as generators of hazardous wastes, thereby falling under the jurisdiction of the applicable legislation along with other waste generators.

VII: CONCLUSION.

Hazardous waste means different things to different people at different times and this is one of the main problems that have undermined attempts to regulate its generation, movement and disposal, not only locally but also internationally. In the past hazardous waste remained under lock and key until the horrifying revelations in the 1980s. It was only then that people realised that something had to be done about the outright and callous exploitation of the developing nations by their developed counterparts. South Africa was one of these, and, as result of numerous embarrassing situations it finally realised the dangers inherent in the hazardous waste trade.

The whole problem of hazardous waste, it is submitted, is not so much the definition itself, but rather, where one draws the line between what constitutes hazardous waste and what does not, having special regard for so-called secondary raw materials and waste intended for recycling. These controversies will hopefully be resolved by the amendment of Basel to include Decision II/12 which bans the export of all hazardous wastes to non-OECD countries, whether intended for final disposal or recycling, reuse and recovery.

Locally, South Africa can do its part by ratifying Bamako¹ and by promulgating a specific waste Act to incorporate all previous legislation into a single comprehensive Act (eg: Waste Act) when contemplating the future regulation of hazardous waste. The following, it is submitted, could also be considered -

- * a complete definition of waste, and more importantly hazardous waste, must be included in the Act,
- * include medical waste in the definition of hazardous waste,
- * prohibit the import and export of all hazardous wastes regardless of purpose, and prevent the generation of such wastes by encouraging the adoption of clean production methods, and where possible, recycling, without derogating from the provisions set out in the Act,
- * contain a specific chapter on hazardous waste, governing all aspects, including its generation, collection, transport, treatment and disposal,
- * prohibit the disposal of hazardous waste in South Africa, not only on land, but also in the sea within the coastal jurisdiction, as well as on the high seas,
- * acknowledge the ratification of Basel (and Bamako) by formally including the ratification(s) into the Act,

¹ Ratifying Bamako should not pose a problem with respect to South Africa's involvement in Basel since article 11 of the latter Convention specifically allows for such a scenario. And, as already mentioned, the consequences of such a ratification would be endless, given South Africa's new-found status on the African continent, and the fact that Bamako only needs one more ratification for it to enter into force as a legally binding international document.

- * transfer the control of waste from the Department of Water Affairs and Forestry to the Department of Environmental Affairs and Tourism. This is necessary, it is submitted, in order to streamline the involvement of government departments, and is in keeping with the spirit of formulating a single comprehensive waste Act, as well as adopting the cradle-to-grave approach of monitoring its entire lifecycle,
- * recognition of employees working with hazardous substances or wastes, with specific reference to the Occupational Health and Safety Act and applicable regulations promulgated thereunder,
- * stringent penal and criminal sanctions for any offence committed under the Act, and
- * the State must be bound by the provisions contained therein.

One of the most important lessons learnt is that there has to be a public right to know in that people should have a right to know about activities and situations that may detrimentally affect their well-being. South Africa's Constitution provides for a right of access to information² but only where this information is held by government bodies. This does not extend to information held by private persons.³ However, The Working Draft of the new Constitution⁴ at section 31(1)(b) states that a person has the right to 'any information that is held by

² s 23 Act 200 of 1993. See Van Huyssteen v Minister Environmental Affairs and Tourism 1995 (9) BCLR 1191 (c) which dealt with access to information of all information relevant to the construction of a proposed steel mill near the West Coast National Park and Langebaan Lagoon.

³ Peckham 104 fn 72.

⁴ 22 November, 1995.

another natural or juristic person and that is required for the exercise or protection of any rights.' This, it is submitted, will greatly assist individuals in seeking to enforce their Constitutionally protected rights, even though it is acknowledged that there may have to be some restriction on this right when there is a risk of exposing another's trade secrets, provided that these themselves do not infringe the affected person's rights. The United States has the Emergency Planning and Community Right-to-Know Act⁵ which is intended to enable communities to acquire sufficient information regarding activities involving chemicals, and enable them to prepare adequately for emergencies involving them,⁶ and it is along these lines that similar legislation could be promulgated in South Africa.

No matter what the outcome, people need to be kept informed about the possible risks associated with hazardous wastes and their management. Accordingly, in order to achieve greater public access, there has to be willingness on the part of both industry and the government to make all the necessary and relevant information available so that an educated and informed conclusion can be successfully reached. It is clear, therefore, that an uneducated or misinformed public has the right to issues affecting public and environmental health. However, it is also clear that such information must be given in an impartial and unbiased manner to enable all those influenced by the hazardous waste to reach a proper and informed decision.

⁵ 1986 42 USC section 1011 ff.

⁶ Peckham 104.

The recognition of a right to know should not be seen as an alternative to proper regulation of hazardous waste⁷ but rather as a means to an end, by convincing industry to make public its intent with respect to the topic of hazardous waste as a whole. This could place it under some degree of moral pressure to comply with the accepted norms⁸ of the times.

Things are finally moving forward in the field of hazardous waste management and although the Department of Environmental Affairs and Tourism's Policy on Hazardous Waste has been heavily criticised, invaluable lessons were learnt, and, it is hoped that these lessons will be carried through CONNEP and culminate in a final comprehensive policy for hazardous waste management in South Africa in the near future.

⁷ Peckham 105.

⁸ Ibid.

APPENDIX A.



United Nations Environment Programme

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23 September 1995

ORIGINAL ENGLISH

Third meeting of the Conference of the
Parties to the Basel Convention

Geneva, 18-22 September 1995

DRAFT DECISION III/... AMENDMENT TO THE BASEL CONVENTION

The Conference

1. Recalling that at the first meeting of the Conference of the Parties to the Basel Convention, a request was made for the prohibition of hazardous waste shipments from industrialized countries to developing countries
2. Recalling decision II/12 of the Conference;
3. Noting that:
 - the Technical Working Group is instructed by this Conference to continue its work on hazard characterization of wastes subject to the Basel Convention (decision III/...).
 - the Technical Working Group has already commenced its work on the development of lists of wastes which are hazardous and wastes which are not subject to the Convention
 - those lists (document UNEP/CHW.3/Inf.4) already offer useful guidance but are not yet complete or fully accepted
 - The Technical Working Group will develop technical guidelines to assist any Party or State wishing to conclude agreements or arrangements including those under Article 11 concerning the transboundary movement of hazardous wastes

4. Instructs the Technical Working Group to give full priority to completing the work on hazard characterization and the development of lists and technical guidelines in order to submit them for approval to the fourth meeting of the Conference of the Parties.

5. Decides that the Conference of the Parties shall make a decision on a list(s) at its fourth meeting

6. Decides to adopt the following amendment to the Convention:

Insert new preambular paragraph 7 bis:

Recognizing that transboundary movements of hazardous wastes, especially to developing countries, have a high risk of not constituting an environmentally sound management of hazardous wastes as required by this Convention

Insert new Article 4A:

1. Each Party listed in Annex VII shall prohibit all transboundary movements of hazardous wastes which are destined for operations according to Annex IV A, to States not listed in Annex VII.

2. Each Party listed in Annex VII shall phase out by 31 December 1997, and prohibit as of that date, all transboundary movements of hazardous wastes under Article 1(i)(a) of the Convention which are destined for operations according to Annex IV B to States not listed in Annex VII. Such transboundary movement shall not be prohibited unless the wastes in question are characterised as hazardous under the Convention.

Annex VII

Parties and other States which are members of OECD, EC.

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