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Policy Paper on Hazardous Substances Management

PREFACE

**This policy document represents the guidance proposed by the Chemical Substances t
Technical Working Group (CSTWG) established by cabinet approval in 1993. It also
integrates the policy considerations formulated for Hazardous Wastes Management in
Barbados which was prepared 2002 for PAHO/WHO by Stantec Consulting. The value
added to the CSTWG document through the PAHO/WHO study is highlighted in italics
throughout.**

**The document represents the culmination of a collaborative effort between the
Environmental Unit (MHE) as convener of the CSTWG, and the Sewerage and Solid Waste
Project Unit - SSWPU (MoH).**

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Policy Paper on Hazardous Substances Management

1 BACKGROUND

In 1993, Cabinet authorized the establishment of a Chemical Substances Technical Working Group (CSTWG) under the Environmental Unit, Ministry of Labour¹. Membership of the Working Group is drawn from a number of public and private sector offices which are either directly or indirectly involved in some aspect of Hazardous Materials Management (Table 1). The principal responsibilities assigned to the Working Group were to -

- establish a single national database on hazardous chemical substances;
- devise a notification system for the importation of hazardous substances;
- review and develop appropriate hazardous materials legislation; and
- develop guidelines for handling, storage, disposal and correct use of hazardous substances

In June 2000, the Ministry of Environment, Energy and Natural Resources (*now Ministry of Housing, Lands and Environment*) presented the following documents to the Cabinet as the major outputs resulting from the deliberations of the CSTWG:

- a. Hazardous Chemicals \ Substances Survey and

Table 1

Members of the Chemical Substances Technical Working Group

1	Barbados Fire Service
2	Government Analytical Services Laboratory
3	Pesticide Control Board
4	Environmental Engineering Division
5	Queen Elizabeth Hospital
6	Central Emergency Relief Organization (CERO)
7	Barbados National Standard Institute
8	Barbados Port Authority
9	Royal Barbados Police Force
10	Customs Department
11	Labour Department
12	National Council for Science & Technology
13	Barbados Workers Union
14	Barbados Manufacturers Association
15	University of the West Indies
16	Ministry of Housing, Lands and Environment - Convener

¹ Responsibility for the coordination of the work of this body presently resides with the Ministry of Housing, Lands and Environment.

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Inventory 1995-1998 (Final report compiled August, 1999);

- b. National Hazardous Materials Emergency Response Plan (Finalized November 1999); and
- c. recommendations for a revised Administrative Framework for the Management of Hazardous Substances.

The Cabinet noted and accepted the Survey and Inventory Report, and approved the Emergency Response Plan for implementation (*Note [00] 562/MEE 28*). The Cabinet further stated that -:

“a policy paper is now required to be used as the basis for legislation. It must be wider than Chemical Substances and must include solid waste.”

It should be noted that the Sewerage and Solid Waste Project Unit is carrying forward the national policy on Solid Waste Management, and has also been assigned the role of developing the associated legislation (see Cabinet Note(97) 713/MHE(E)36; and Note (00)1495/MH 70). Accordingly, the Ministry Physical Development and Environment has interpreted the reference in the decision to be limited to *“hazardous waste”* and not solid waste in general. Accordingly, the Sewerage and Solid Waste Project Unit were engaged in extensive discussions on this matter to facilitate the inclusion of hazardous waste management issues into the current policy paper, and to ensure that the treatment offered complies with the aims and objectives of the overarching Integrated Solid Waste Management Programme (ISWMP).

This Report seeks primarily to identify appropriate Goals, Objectives and Policies for Hazardous Substances Management across the sectors for which regulatory control is considered to be lacking, and recognized as being necessary. Additionally, these are expected to inform the development of the long-term programmes and activities of the supporting administrative framework which is required and proposed for establishment as part of the mandate of the Ministry of Housing, Lands and Environment (see section 5).

2 LEGISLATIVE REVIEW

An investigation into the range of national legislation which presently exists, or is being contemplated, that may have provisions covering issues of import to Hazardous Substances Management was conducted. A summary of the relevant statutes and their general provisions is offered in Table 2. These readily demonstrate that the existing pieces of legislation are distributed across various administrative sectors, and that they are generally unsupported by regulations providing stakeholder guidance on the measures and practices to be undertaken in the overall management effort.

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Table 2: Existing Legislation which provides partial coverage for Hazardous Substances Management		
Statute and Description	Relevant Provisions	Office
HEALTH SERVICES ACT (CAP. 44) <i>"an Act relating to the promotion and preservation of the health of the inhabitants of Barbados"</i>	Covers <ul style="list-style-type: none"> regulation of Drugs nuisance discharges of industrial wastes to watercourses..etc regulation of offensive trades (e.g chemical or acid making..and others) 	MoH
EXPLOSIVES (cap 162) <i>"An Act to consolidate and amend the Acts relating to Merchants gunpowder and to regulate the importation and sale of certain explosives"</i>	coverage for import, transportation and storage of blasting powder, dynamite, nitroglycerine and all other explosive matter whatsoever	Attorney General
FUEL OIL (CAP. 164A) <i>An act relating to the importation and storage of fuel oil.</i>	Empowers Minister to regulate the landing, storage, and keeping of Fuel Oil.	Min. Energy
FERTILISERS AND FEEDING STUFFS (CAP. 261) <i>"an act to amend the law with respect to the sale of fertilisers and feeding stuffs."</i>	Provides for the regulation of the import, manufacture, labeling, sale....etc of fertilizer or feed stuff.	Min. Agriculture
THE BARBADOS PORT AUTHORITY ACT (CAP. 285B) <i>"An Act to provide for the establishment of a Port Authority in Barbados."</i>	Section 31 requires that adequate notification be provided to the Authority about dangerous or offensive goods submitted for carriage, storage or warehousing.	Min. Int'l Transport
HIGHWAYS (CAP. 289) <i>"an act to make provisions in relation to highways in the island"</i>	Prohibition against fireworks on highways	Min. Public Works
ROAD TRAFFIC (CAP. 295) <i>An Act to revise and consolidate the law relating to road traffic.</i>	NONE PROVIDED FOR THE TRANSPORTATION OF HAZARDOUS MATERIALS	Min. of Finance
FACTORIES ACT (CAP 347) <i>"an act to revise and consolidate the law relating to factories and the safety, health and welfare of persons employed therein"</i>	General provision for Occupational Health and Safety issues and for factory inspections.	Min. Labour
RADIATION PROTECTION (CAP. 353A) <i>'an act to give effect to the Article 10 of the Radiation Protection Convention, 1960, Convention No. 115 of the International Labour Conference, related to the protection of workers against ionizing radiations"</i>	Worker safety from radiation exposure.	Min. Labour
PESTICIDES CONTROL ACT (CAP 395) <i>"An Act to provide for the control of the importation, sale, storage and use of pesticides"</i>	<ul style="list-style-type: none"> defines functions of the Pesticide Control Board Empowers Minister to make regulations in all areas of Pesticide Management (import, manufacture, transportation, use disposal...etc.) 	Min. Agriculture

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<p>CONTROL OF STANDARDS ACT (CAP 326A) <i>"An Act to provide for the control of standards and the labelling of commodities"</i></p>	<ul style="list-style-type: none"> • Defines standard specification to be obligatory if it is intended primarily (a) to protect the consumer against danger to health or safety. • No person shall label commodities contrary to the Barbados National Standard. • Where Imports do not comply with the relevant obligatory standard specification, the import shall not be admitted for distribution in Barbados. <p>Relevant Standards already available include:</p> <ul style="list-style-type: none"> ▶ BNS 8: 1987 - Specification for Pictorial Marking for Handling of Goods (General Symbols) ▶ BNS 44: 1978 - Specification for Pictorial Marking for Handling and Labeling of Dangerous Goods. ▶ BNS 45: 1980 - Specification for Classification of Hazardous Chemicals and Chemical Products ▶ BNS 46: 1982 - Specification for Classification of Dangerous Goods. 	<p>Min. Commerce</p>
<p>LEGISLATION CURRENTLY BEING DEVELOPED</p>		
<p>ENVIRONMENTAL MANAGEMENT ACT² (Draft) <i>" An act to provide for the wise management and sustainable use of the natural environment and resources of Barbados by making provision for the management and protection of the water resources of Barbados, the natural heritage of Barbados, the Barbados National Park and the coastal zone of Barbados and for controlling pollution of the environment of Barbados."</i></p>	<p>Part 29 defines the mandate of the Director of Environmental Protection in the monitoring and regulation of Toxic Substances. These include</p> <ul style="list-style-type: none"> • maintenance of a register of licences and a register of toxic substances. • determines applications for the use of toxic substances. • allows for the drafting of regulations by the Minister 	<p>MPE</p>
<p><i>SOLID WASTE MANAGEMENT ACT</i></p>	<p><i>Now being contemplated by the Sewerage and Solid Waste Project Unit, Ministry of Health. Will provide coverage for Waste management issues including liquid and solid hazardous waste.</i></p>	<p>MoH</p>
<p><i>OCCUPATIONAL HEALTH AND SAFETY ACT</i></p>	<p><i>This is intended to replace the Factories Act, and is expected to offer wider coverage of workplace occupational health and safety management issues.</i></p>	<p>Min. of Labour</p>

² *Draft Environmental Management Act (1999) was prepared under the Environmental Management and Land Use Planning Study (EMLUP).*

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The key pieces of legislation which emerge as having direct relevance to the report are

- ▶ the Factories Act,
- ▶ the Fertilizers and Feed Stuffs Act ,
- ▶ the Control of Standards Act,
- ▶ the Health Services Act, and
- ▶ the Pesticides Control Act.

The preparation of comprehensive Hazardous Substances Management Framework is likely to require either amendments to, or the repeal of, the Fertilizers and Feed Stuffs Act and the Pesticides Control Act.

The Occupational Health and Safety Bill is at an advanced stage of development by the Ministry of Labour. This is intended to replace the Factories Act, and is expected to offer wider coverage of workplace occupational health and safety management issues. Any comprehensive Hazardous Substances Management legislation must of necessity recognize and make reference to the proposed Bill.

Of particular note is the existence of Barbados National Standards on the classification and pictorial markings for Hazardous Substances. Despite their existence, usage in the transport of Hazardous Substances is not readily apparent. Monitoring and enforcement of the application of these standards is severely lacking.

3 *INTERNATIONAL CONVENTIONS AND PROTOCOLS*

Relevant international Conventions and Protocols which Barbados is signatory to, have been summarized in Table 3.

<i>Convention/ Protocol</i>	<i>Acceded</i>
<i>Basel Convention on the trans-boundary movement of Hazardous Wastes</i>	<i>Aug. 24, 1995</i>
<i>Vienna Convention on the Protection of the Ozone Layer</i>	<i>Oct. 16, 1992</i>
<i>Montreal Protocol</i>	<i>Oct. 16, 1992</i>
<i>London Amendment</i>	<i>July 20, 1994</i>
<i>Copenhagen Amendment</i>	<i>July 20, 1994</i>
<i>MARPOL 1973-78</i>	<i>Ratified May 6, 1994</i> <i>Annex 5 - still pending</i>

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<i>Cartagena Convention</i>	
<i>Convention on the Prevention of Marine Pollution by dumping of wastes and other matters (London Dumping Convention - 1972)</i>	
<i>International Convention on Civil Liability for Oil Pollution Damage, 1969</i>	
<i>International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971</i>	
<i>International Convention relating to Intervention on the High Seas in cases of Oil Pollution Casualties, 1969</i>	

4 MODEL COMPARISONS

Little information on regional approaches to Hazardous Substances Management appears to be readily available for the countries of the Eastern Caribbean. The Caribbean Environmental Health Institute (CEHI) Dalhousie University (Canada) project on "Management of Industrial Chemicals and Wastes in the CARICOM States" represents a singular attempt to address this matter. The recommendations of the working group discussions from the Project Workshop³ is presented here in Appendix 2, as it offers guidance for regional action at various levels.

Internationally, a wealth of information is available on the legislative provisions and technical approaches adopted by several countries of the developed world. Provisions are often encompassed in a mix of statutes which are generally quite complex.

5 GOALS, OBJECTIVES AND POLICIES FOR HAZARDOUS SUBSTANCES MANAGEMENT

As part of the Integrated Solid Waste Management Programme, Stanley International conducted a study on hazardous substances management in Barbados⁴. This produced a hazardous materials summary, and sought to characterize the proportion of the waste stream which is potentially recoverable.

³ *Regional Workshop on Chemical Control and Waste Minimization for the Management of Industrial Chemicals and Wastes in CARICOM States; Port of Spain, Trinidad and Tobago, January 11-13, 1995.*

⁴ *Waste Chemicals Storage Facility - Barbados Solid Waste Management Programme. Stantec; 1999. Prepared for the Ministry of Health.*

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The Hazardous Chemicals Survey and Inventory Report⁵ 1995-1998 prepared by the then Ministry of Environment, Energy and Natural Resources - MEE (*now MHE*) suggested that initial management efforts should focus on the regulation of hazardous chemicals as these might be more easily monitored, and with the assumption that in bulk quantities they might pose a more significant direct public and environmental health threat than other materials formulations. It further stated that though required, monitoring and regulating the vast range of product formulations which might include one or more hazardous ingredient represents an onerous task to consider tackling from programme startup.

It is to be noted that these recommendations were developed in the context of the scope of the CSTWG which was limited to investigations into chemicals management. However, a logical extension to the suggested initial approach would be to also provide coverage for hazardous waste management. This Policy paper therefore integrates the requirements for Hazardous Waste management in the context of the Integrated Solid Waste Management Programme. This is achieved through the inclusion of the relevant Hazardous Waste management policy recommendations offered in the Stanley report prepared for PAHO/WHO⁶.

The Administrative body to be established will need to consider all categories of Hazardous Substances in their strategic planning and implementation programmes. Through time, it will be expected to develop a comprehensive database on hazardous substances and wastes which would inform decisions on the control mechanisms which are appropriate for their respective uses, general management and disposal.

⁵ *Hazardous Chemicals Substances Survey and Inventory 1995-1998. Technical Report of the Ministry of Environment, Energy and Natural Resources. August 1999.*

⁶ *Barbados Draft Policy Paper: Management of Toxic Chemicals and Hazardous Wastes. Stantec, 2002. Document prepared for the Office of the Caribbean Programme Coordination, PAHO/WHO.*

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5.1 Stages for regulatory intervention

This document primarily focuses on the role of Government as the national regulatory authority in the overall management framework. It also makes references to, and/or recommendations on, the undertakings that other stakeholders might contemplate and/or implement over and above the regulatory requirements.

There are *four* levels at which regulatory intervention in the management of Hazardous Substances are considered to be appropriate and against which objectives and sectoral policy consideration being put forward have been defined.. These are as follows:

- (A) Import/Export /
Re-Export - would provide for the control of what may enter and leave the shores of Barbados.
- (B) Handling and
Transport - would govern how Hazardous Substances are received and discharged at Port, and how they are delivered to the Importer/Retailer.
- (C) Business
Operation - would allow for regulation of business operations to minimise the public and environmental health risk associated with the storage, manufacture and retail of hazardous substances. This might extend up to the licensing and registration of storage facilities and professional users.
- (D) *Disposal* *Would allow for the central collection, processing (if required), packaging, storage and ultimate shipment of the waste toxic chemicals and hazardous wastes to an approved accredited facility in another country for treatment, disposal/dissolution, recycling and/or reuse.*

Accordingly, the overall goal for Hazardous Substances Management and the policy considerations to inform legislative drafting and the development of future regulatory programmes are defined in the sections that follow.

5.2 Overall Goal

The national goal for Hazardous Material Management is proposed as being -:

TO PREVENT OR MINIMIZE THE PUBLIC AND ENVIRONMENTAL HEALTH RISKS ASSOCIATED WITH THE IMPORTATION/EXPORTATION, HANDLING, COLLECTION, TRANSPORTATION, TREATMENT AND /OR STORAGE OF TOXIC CHEMICALS AND HAZARDOUS WASTES IN BARBADOS.

5.3 Sectoral Objectives and Policy Considerations

5.3.1 Import\Export\Re-Export

5.3.1.1 Objective:

To provide control over the volume and diversity of Toxic Substances and Hazardous Wastes that are imported into, exported from , or trans-shipped through Barbados.

5.3.1.2 Policy Considerations:

No hazardous substance will be allowed into Barbados except that it is

- ▶ sanctioned for local use by the designated competent authority *and not on the list of "Banned Substances"*;
- ▶ supported by the appropriate importation approvals;
- ▶ adequately classified, labeled and declared in accordance with the requirements of the Customs and Excise department *as well as international standards; and*
- ▶ *a valid Materials Safety Data Sheet (MSDS) and a multi part Manifest accompany it.*

Hazardous substances exports are to be appropriately documented in accordance with the national guidelines and standards, and in compliance with the requirements of the exporting and importing country. *As such, a manifest system must be defined and implemented. This system will track the importation, handling, transportation and ultimate exportation for treatment and disposal of toxic chemicals and hazardous wastes in Barbados.*

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5.3.1.3 Responsible Agencies:

As part of their mandate, the SSWPU should design a manifest system for the importation, handling, transportation and ultimate transportation for treatment and disposal.

A sample copy of a manifest form from Canada, and the supporting legislation is included here as Appendix _____

5.3.1.4 Implementation

The manifest system should be implemented by the SSWPU and then handed over to the Environmental Engineering Division - EED (proposed Environmental Protection Department - EPD) for management. A database must be established and maintained to control and manage the movement of these toxic chemicals and hazardous wastes.

5.3.2 Handling and Transport

5.3.2.1 Objective:

To establish an appropriate domestic Hazardous Substances handling and transportation regime

5.3.2.2 Policy Considerations

All persons involved in the handling of Hazardous Substances are to be appropriately protected in accordance with the provisions detailed in the Occupational Health and Safety Bill, and any other legislation governing workers rights. *This would include appropriate personal protective clothing (PPC) and personal protective equipment (PPE).*

The transport of Hazardous Materials:

- ▶ is to be provided only by certified haulers using vehicles approved for such a purpose;
- ▶ is to occur along designated routes, at appropriate times, and in such quantities as may be prescribed by the designated national authority (ies).
- ▶ *is to be accompanied by valid MSDSs; and*
- ▶ *is to be accompanied with the original manifest while it is being*

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transported from the Port of Entry to the Business operations.

Staff at the Port and the carrier company (ies) should be trained on material identification, handling and spills.

Handling should always take into account the hazardous classification(s) of the mix of materials to be transported, noting the inherent risk of reactivity.

Hazardous Substances are never to be stored and/or transported along with other materials. *In addition, care must be taken to safely segregate wastes that are not compatible.*

During transport, all approved vehicles are to be appropriately labeled with the relevant Hazardous Material pictorial marking(s) in the Barbados National Standard (BNS 44: 1978).

5.3.2.3 Responsible Agencies:

The handling and transport of the toxic chemicals and hazardous wastes is the responsibility of the individual businesses and carrier companies (private sector). As part of their mandate, the SSWPU should design a training programme/session for business and carrier companies on the safe handling and transportation of toxic chemicals and hazardous wastes. After receiving training, carrier companies would be certified. It is the responsibility of the individual businesses and carrier companies to seek out training and certification. It will be the responsibility of the EED/EPD to manage the manifest system, and to monitor the proper handling and transportation of the toxic chemicals and hazardous wastes.

5.3.2.4 Implementation

The training programme/sessions should initially be implemented by the SSWPU and then handed over to the EU for continued implementation.

5.3.3 Business Operations (Manufacturing, Wholesale and Retail), Including Government Agencies

5.3.3.1 Objective:

To establish an appropriate regulatory mechanism for hazardous substances storage, manufacture, distribution and waste disposal.

5.3.3.2 Policy Considerations

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Hazardous Substances Receipt and Storage

- ▶ *Posting and cataloguing of MSDSs*
- ▶ *Retain, catalogue and forward shipping and transportation Manifest.*
- ▶ Only certified haulers are to be employed for the transportation of hazardous substances.
- ▶ On-site storage facilities must comply with the guidelines prescribed by the designated national authority, and be of sufficient size to handle the scale of business operation.
- ▶ Stock rotation and general storeroom management practices are to be encouraged in all relevant business sectors.
- ▶ Stock inventories and stock rotation records are to be maintained by all businesses involved in the importation, manufacture, and distribution of Hazardous Substances.
- ▶ *Review of other jurisdictions regarding banned substances.*

Operations (Manufacturing, Wholesale, Retail)

Occupational Health and Safety

- ▶ All persons involved in the handling of Hazardous Substances are to be appropriately protected in accordance with the provisions detailed in the Occupational Health and Safety bill, and any other legislation governing workers rights (*Personal Protective Clothing and Personal Protective Equipment*).
- ▶ *Train staff at place of business on handling.*
- ▶ *Train staff in case of spill or accident.*
- ▶ *Employee training in Occupational Health and Safety (OHSA), First Aid and Work Place Hazardous Materials Information System (WHMIS).*

Labeling

- ▶ *Post/ Catalogue MSDSs*

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- ▶ As a minimum requirement, containers containing hazardous substances shall at all times be so labeled to indicate (a) the trade name, (b) hazardous ingredient, (c) handling precautions, (d) the hazard classification and risk to exposure, and (e) expiry date. All labels are to comply with the provisions of the relevant National Standard(s) (e.g *WHMIS*).

Process Audits\Life Cycle Assessments

- ▶ the execution of routine manufacturing process audits and the engagement of life cycle assessment approaches and principles, is to be encouraged amongst the relevant business sectors. These are intended to (a) allow for reconciliation of resource inputs to production outputs, (b) inform production efficiency, recovery and recycling, and waste minimization \ management processes, and (c) identify the types and degree of environmental discharges, and inform management decisions to ameliorate the same.

Environmental Discharges

- ▶ *Environmental discharges are illegal and subject to fines and other penalties.*
- ▶ contingency plans must be established to combat environmental discharges in accidental\emergency situations (*including deliberate*), and to remedy the associated public and environmental health effects.

Waste Generation, Storage and Disposal

- ▶ *On-site hazardous waste storage of large quantities is to be strongly discouraged and subject to fines and other penalties. It is the responsibility of the business to transport hazardous waste substances to the Central Location. A standard must be set to establish allowable maximum on-site storage volume.*
- ▶ Wastes are to be routinely transported to the National Waste Chemical Storage Facility for storage prior to disposal.
- ▶ Waste reduction practices and the use of less hazardous alternatives in the production cycle are to be encouraged.
- ▶ *MSDSs and appropriate copies of the manifest should be kept with the product/waste substance.*

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Business Operation

- ▶ *Sell and/or recommend Personal Protective Clothing/ Personal Protective Equipment to those purchasing the toxic chemical or hazardous substance.*
- ▶ *Record Keeping - accounting of quantity of materials imported, sold and disposed of. This includes a filing system of manifest copies.*

5.3.3.3 Responsible Agency:

The individual businesses are responsible for :

- ▶ *receipt and storage of toxic chemicals and hazardous wastes;*
- ▶ *Occupational Health and Safety of their employees;*
- ▶ *labeling of toxic chemicals and hazardous wastes;*
- ▶ *undertaking process audits and/or life cycle assessments;*
- ▶ *any environmental discharges (accidental, emergency or deliberate);*
- ▶ *recording and filing of manifest copies;*
- ▶ *developing recycling and reuse options; and*
- ▶ *waste generation, storage and disposal.*

As a part of their mandate, the SSWPU should ensure that training programmes exist for businesses and carrier companies on the safe handling and transportation of toxic chemicals and hazardous wastes.

5.3.3.4 Implementation:

The individual businesses are responsible for the implementation of these policy considerations.

5.3.4 Disposal

5.3.4.1 Objective

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To establish an appropriate regulatory mechanism for the central collection/storage, processing (minimal, if required), packaging, bulk storage and ultimate shipment of the waste toxic chemicals and hazardous waste to an accredited facility in another country for treatment and/or disposal.

5.3.4.2 Policy Considerations

- ▶ *All Businesses and Government Bodies that import toxic chemicals or hazardous substances are responsible for the correct /appropriate transportation, storage, use and, if necessary, disposal.*
- ▶ *Disposal refers to the transportation of the expired, spoiled, leftover toxic chemicals and any hazardous waste generated from the place of business or government agency to the Central Chemical Waste Storage Facility at Vacluse. Personal Protective Clothing and approved Personal Protective Equipment should be used as appropriate as well as appropriate enclosure/container for storage on site and transportation.*
- ▶ *Shipments are to be properly transported and handled as per section 5.3.2.*
- ▶ *MSDSs and manifests are to accompany any and all shipments.*
- ▶ *At the Central Waste Storage Facility, Chemicals and wastes will be segregated, classified and packaged for storage and/or transportation to accredited offshore disposal and processing (treatment) facilities.*
- ▶ *Certificates of Destruction should be obtained from the final disposal or processing facilities to complete the paperwork cycle and close the manifest.*

5.3.4.3 Responsible Agency

The Private Sector would be responsible for the operation of the facilities with the SSA being the supervisory body. The EED (EPD) would be responsible for the monitoring and regulation of the operation of the facilities.

5.3.4.4 Implementation

The SSWPU through a competitive bidding process will select the private sector company and award the contract for the operation of the facility.

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6 ADMINISTRATIVE FRAMEWORK

The CSTWG identified the need for the creation of an administrative body to oversee the management of Hazardous Chemicals\Substances including pesticides. The full range of these recommendations has already been submitted to the Cabinet (*Note (00)562/MEE 28*). These are reproduced here for completeness.

The CSTWG has recommended:

The Hazardous Chemicals Control Board

- I. The creation of a **Hazardous Chemicals Control Board [HCCB] under the Ministry of Housing, Lands and Environment** which will assume responsibility for all matters relevant to all hazardous chemicals including pesticides. The Board will address applications for registration, licenses and permits as well as conduct relevant research to support the identification of chemicals appropriate for use in Barbados and the determination of the manner in which there are to be managed.

Repeal of the Pesticides Control Act

- II. The repeal of the Pesticide Control Act (1972), and the enactment of a new Hazardous Chemicals Control Act

Composition of the HCCB

- III The **HCCB** will be composed of representation from the offices listed below:

<i>Proposed Composition of the Hazardous Chemicals Control Board (HCCB)</i>	
▶ Ministry of Environment	Sr. Environmental Officer
▶ Ministry of Health	Chief Medical Officer \ Chief Environmental Engineer
▶ Ministry of Agriculture	Chief Agricultural Officer \ Government Analytical Services - Director
▶ Ministry of Labour and Community Development	Chief Labour Officer

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▶ Barbados National Standards Institute	Director
▶ Central Emergency Relief Organization	Director of Emergency Services
▶ Barbados Fire Service	Chief Fire Officer
▶ Royal Barbados Police Force	Commissioner of Police
▶ Customs & Excise Department	The Comptroller of Customs

- IV Noting the experience which has been gained by the Ministry of Agriculture in the management of pesticides through the Pesticide Control Board, the Chair of the HCCB be initially held by that Ministry for a period of two (2) years. Thereafter, further consideration of the choice of Chair would be made by the Board.

Pesticides and Industrial Chemicals Technical Sub-Committees

- V. The establishment of two technical subcommittees to the HCCB with expert personnel drawn from Government agencies, the University of the West Indies and other technical bodies. These committees will address matters related pesticides and industrial chemicals respectively. In addition to the technical personnel drawn from the Ministries of Environment, Health, and Agriculture, others might include professionals in such fields as Agronomy, Entomology, Occupational Health and Safety, Chemistry, and Medicine.

HCCB Secretariat

- VI The HCCB will be serviced by a newly established Secretariat. It is expected that the secretariat will require a staff of:
- ◆ One (1) Registrar;
 - ◆ four (4) technical officers, (1 Senior and 3 Junior);
 - ◆ one (1) database manager; and
 - ◆ secretarial support.

HCCB Secretariat Responsibilities

- VII The responsibilities of the Secretariat will entail:

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- The processing of applications for retail license, permits associated with the importation of hazardous chemicals and pesticides for the consideration of the Technical Sub-Committees and the HCCB.
- Sourcing and collation of information on the Environmental and Health dangers associated with use of a new or registered hazardous chemicals. This will be in addition to the information requested from the importer.
- Monitoring of industrial activities (inclusive of spot checks) associated with chemical use;
- Assisting Customs officers in the task of identification and verification of hazardous chemicals and pesticides being imported into Barbados;
- Execution of the provisions under the legislation developed for the management of hazardous chemicals and pesticides and to investigate suggested breaches of the legislation;
- Working in collaboration with the relevant agencies on the use, handling, transportation, storage and disposal of hazardous chemicals;
- Collection of timely and accurate data from companies who import and manufacture chemicals in Barbados to update the national registry; and
- collation of information for dissemination nationally (to enforcement agencies and industry), regionally and internationally to ensure that the Government of Barbados meets its obligations as State party to the various related conventions e.g. Basel Convention, PIC Procedure Convention, and current and evolving work in the Intergovernmental Forum on Chemical Safety;

Hazardous Chemicals Appeals Tribunal

- VIII. An Appeals Tribunal will also be designated which will hear and make rulings on appeals to the decisions taken by the HCCB and will be a panel of five (5) persons to include:
- ▶ three (3) Permanent Secretaries of the four Ministries of Environment, Health, Agriculture, and Labour;

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- ▶ the Chief Parliamentary Counsel; and
- ▶ either the Chairperson of the HCCB or one of the technical sub-committee members.

The chair of the Tribunal would be appointed by the Minister responsible for Hazardous Chemicals Management, and should be a member of any one of the foregoing Ministries or organizations.

Inspectorate Functions and Services

- IX Recognizing that inspectors are presently available at the offices of the Environmental Engineering Division, the Public Health Inspectorate, the Factory Inspectorate, the Pesticides Control Board\MAR, and the Barbados Fire Service, it is proposed that these provide the supporting inspectorate functions for the HCCB. Additional training exposure to include the recognition and monitoring of issues of import to the HCCB is considered to be necessary, and identified as one of the initial priority areas of activity for the HCCB Secretariat. Similarly the need for a formal reporting relationship between the heads of available inspectorates and the HCCB has been recognized. It has been suggested that this might be achieved through legislation.

Hazardous Materials Handling Team

- X The Consultants for the Sewerage and Solid Waste Project suggested that matters pertaining to the temporary storage of hazardous wastes and the subsequent shipment overseas for treatment and disposal should fall under the mandate of the Sewerage and Solid Waste Project Unit. They further identified the need for a special Hazardous Materials Handling Team (Haz-Mat Team) within the Environmental Engineering Division to oversee such an operation. The CSTWG has identified the containment and clean-up effort related to hazardous materials emergency incidents as an additional role for the Haz-Mat Team to play in the overall management effort.

6 Revisions

The recommendations of the CSTWG were developed in advance of the expanded mandate provided by the Cabinet in respect of Hazardous Substances Management. Accordingly all references where the term Hazardous Chemicals is used should be replaced with the term Hazardous Substances [e.g Hazardous Chemical Control Board (HCCB) should be renamed as the Hazardous Substances Control Board (HSCB)].

7 Supporting Management Functions

Beyond the regulation of imports and the definition of guidelines and standards for storage and handling as will be attended to by the proposed HSCB, there is the matter of the usage of hazardous substances. This is of particular importance in the post retail sector where the substance would now be in the hands of private citizens, small scale farmers and pest operators.

Sensitization of the general public on matters of the appropriate handling, use and disposal methods for hazardous substances will have to be addressed through broad scale national public awareness initiatives. Of necessity, this is expected to be one of the core programme areas for the HSCB and Ministry. Small scale established business operators and farmers can however be readily identified and specifically targeted for management actions. In particular, the role of the Ministry of Agriculture in the provision of competent technical advice to farmers on the appropriate use and disposal of pesticides as part of their promotion of best agricultural management practices, is viewed as being an integral part of the national hazardous substances management effort. Similarly the supporting roles of the Ministries of Health, Labour, and Industry, among others, in the promotion of the goals and objectives for hazardous substances management through the routine discharge of to their respective mandates, is considered to be fundamental to any gains to be achieved in the future.

8 The Way Forward

The full range of the administrative proposals offered by the CSTWG are being considered in the context of the overall institutional restructuring recommendations for the MEE which were offered through EMLUP. The study identified the need for the creation of an Environmental Protection Department (EPD) within the MEE to serve as the principal regulatory authority. This is considered to be fundamental to the attainment of the goals and objectives defined in the Environmental Management Plan. Accordingly, it is proposed that the management responsibility and administrative framework for hazardous substances management be vested in the EPD. Finalization of the full institutional reform package for the MEE is ongoing and expected to be finalized in the 2001 calendar year.

Recommendations and Guidelines for Model Chemical legislation were prepared under the CEHNDalhousie Project previously referenced, to inform improvements in management in CARICOM Member States (Appendix 4). More specifically, part 29 of the Draft Environmental Management Act prepared for Barbados under the EMLUP study makes provision for the management of Toxic Substances through a Director of Environmental Protection as head of an Environmental Protection Department (Appendix 5). Both these are appropriate references to assist with the legislative process contemplated for the future.

The Draft Environmental Management Act represents the culmination of a comprehensive look at the existing national environmental management framework and its supporting

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legislative base. It considers the revised institutional framework recommended and is omnibus in form, in that it defines the mandates and powers of the respective departments contemplated for the revised MEE.

Logical steps in the definition of a MEE capable of meeting the current and emerging challenges in Environmental Management, including Hazardous Substances Management, are considered to be as follows -:

- The speedy resolution of all outstanding institutional issues and the establishment of a fully mandated and functional Ministry of Housing, Lands and Environment.
- Review and update of the Draft Environmental Management Act and its subsequent enactment as national legislation.
- Review and update of the Environmental Management Plan. The EMP is a forward looking document which defines the Goals and Objectives for environmental management, and identifies the necessary actions\activities which are required for implementation. In essence it is a technical strategic plan. Formal acceptance of this document through the procedures defined in the Environmental Management Act is considered to be the pillar upon which the restructured Ministry should be built.

An established Environmental Protection Department will subsequently be expected to formulate appropriate regulations for hazardous substances management founded on the policy considerations offered earlier. It is to be noted, however, that this department will require some time to fully appreciate the breath of its mandate, and to develop and execute the full range of programmes to meet the respective targets and goals. Early progress can be made in this regard through consideration of the existing pesticide control regulations (*i.e: Pesticide Regulations - 1974; and Pesticide Control (labeling of pesticides) Regulations, 1976 - Appendix 6*). These might be redrafted under the environmental management act to provide coverage for this specific class of hazardous substances, or broadened to provide coverage for hazardous substances in general.