

Chapter 4: Legal Instruments and Non-Regulatory Mechanisms for Managing Chemicals



- 4.1 Overview of the National Legal Instruments, which Address the Management of Chemicals
- 4.2 Summary Description of Key Legal Instruments Relating to Chemicals
- 4.3 Existing Legislation by Use Category Addressing Various Stages of Chemicals from Production/ Import to Disposal.
- 4.4 International Conventions and Obligations.
- 4.5 Comments / Analysis.



4.1 Overview of the National Legal Instruments, which Address the Management of Chemicals

The infrastructure for dealing with chemical safety in Egypt is now growing fast. An integrated chemical safety programme implemented in a coordinated manner among different responsible authorities does exist. Existing control measures are present and provide a complete coverage for the country. There is a very good coordination, between related ministries and authorities. For example, the Ministry of Health and Population has established a unit for chemical safety; work is going on to survey exposure to chemicals and to prepare a registry of chemical products; to survey chemical incidents; and to develop public awareness on problems of chemicals.

Thus, the need to control using of chemicals is one of the ways through which chemical risks to humans and the environment can be adequately managed. The control should be done through legislation's, regulations and guidelines. Legislations outline a broad environmental protection and provide principles, powers and rights creating an "umbrella" for environmentally sound management of POPs and other hazardous substances and wastes. Such legislation gives the government the power to enact specific rules and regulations to inspect and enforce, and to establish penalties for violations. *Table 4-A aim to provide a list of all laws, regulations and standard and/or other legal instruments associated with chemical management and control. Moreover, the table focuses on the scope and objectives of each law, responsible Ministries and provided legal instruments.* **Table 4-A:**

References to Existing Legal Instruments, which address the Management of Chemicals

<i>Legal Instrument (Type, Reference, Year)</i>	<i>Responsible Ministries or Bodies</i>	<i>Chemical Use Categories Covered</i>	<i>Objectives of Legislation</i>	<i>Enforcement Ranking⁽³⁾</i>
Law No.4 of 1994	MSEA	Industrial chemicals, Agricultural chemicals (pesticides – fertilizers), Pharmaceutical chemicals, Petroleum products, Explosive chemicals, radioactive materials, Consumer chemicals and Chemical waste.	Environmental Protection and Pollution Control in Egypt	(2)

Decree No. 338 of 1995	MSEA	Industrial chemicals, Agricultural chemicals (pesticides – fertilizers), Pharmaceutical chemicals, Explosive chemicals, radioactive materials, Petroleum products consumer chemicals and chemicals waste.	Executive Regulations for Law No.4/1994	(2)
Decree No.55 of 1983	MOMI	All chemicals used in the Industrial field	Regulate and control use, handling, and storage of chemicals and conditions required for industrial safety and health in the work places	(2)
Decree No.116 of 1991	MOMI	All chemicals used in the Industrial field	Strengthening the facilities with training for directors and workers	(2)
Decree No. 60 of 1986	MOA	Pesticides	Regulates & controls the using of restricted compounds	(2)
Decree No.258 of 1990	MOA	Fertilizers	Regulates and controls the importation of fertilizers	(2)
Decree No. 7330 of	MOIn	Explosives	Determination of	(2)

1994			substances that are considered as explosives	
Decree No. 18039 of 1995	MOIn	Explosives	Issue of license for import and use of explosives	(2)
Decree No. 499 of 1995	MOI	Poisonous and non poisonous substances in industry	Control of handling the poisonous & non-poisonous substances in industry	(2)
Labor Law No. 137/1981	MOMI	Industrial Chemicals	Labor and industrial safety protection of industrial Environment	(2)
Law No. 21/1958	MOI	Industrial Chemicals	Rules regulating industry and production, handling and importing of chemicals.	(2)
Decree No. 91/1959	MOI	Industrial Chemicals	Rules regulating industry and production, handling and importing of chemicals.	(2)
Decree No. 480/1971	MOHP	Industrial Chemicals	Air pollution criteria for industrial establishment	(2)
Agriculture Law No. 53/1966	MOA	Agricultural Chemicals	Rules regulate production, import, use of pesticides and fertilizers.	(2)
Decree No. 50/1967	MOA	Pesticides	Toxic properties of pesticides and procedures for recording it.	(2)
Decree No. 590/1984	MOA	Fertilizers	Rules regulate production, import, and use of fertilizers.	(2)
Decree No.	MOA	Veterinary	Regulates importing of	(2)

278/1988		Insecticides	veterinary insecticides.	
Decree No. 874/1996	MOA	Pesticides	Regulates importing, handling and using of pesticides.	(2)
Law No. 59/1960	MOHP	Ionized Radiation's	Regulates the work with Ionized radiation's and protection from their danger	(2)
Decree No. 630/1962	MOHP	Ionized Radiation's	Executive regulations for law No.59/1960	(2)
Decree No. 348/1996	MOHP	Banned Insecticides	A list of insecticides not allowed to be imported, produced or used	(2)
Decree No. 392/1964	MOHUUC	Explosives	Determinations for conditions for explosive warehousing	(2)
Decree No. 138/1958	MOI	Industrial Chemicals	Regulates importing, handling and using of industrial chemicals.	(2)
Decree No. 977/1989	MOI	Industrial Chemicals	Prohibition Of freogn in manufacturing of aerosols.	
Law No. 113/1962	MOHP	Pharmaceutical Chemicals	Regulates importing, manufacturing, and trade of pharmaceutical chemicals.	(2)
Decree No. 413/1996	MOHP	Hazardous Chemicals & Wastes	How to get license for handling of hazardous chemicals and wastes.	(2)
Decree No. 8/1990	MOHP	Natural and Artificial Colors	Determination of natural and artificial colors allowed to be used in food	(2)

			Industry	
Decree No. 673/1999	MOP	Petroleum Hazardous Chemicals	A list of hazardous chemicals for Ministry of Petroleum	(2)
Decree No. 82/1996	MOHP	Hazardous Chemicals (for Health)	A list of hazardous chemicals for Ministry of Health	(2)
Decree No. 55/1996	MOT	Banned Chemicals	A list of chemicals not allowed be importing, producing or using.	(2)
Decree No. 88/1999	MOI	Hazardous Industrial Chemicals	A list of hazardous chemicals for Ministry of Industry which can not be used without license	(2)

Effective (1), fair (2) or weak (3) enforcement

4.2 Description of Key Legal Instruments Relating to Chemicals

Environmental Law number 4/1994 and its Executive Regulations is consider the main legal framework that regulates and control hazardous substances and wastes management in Egypt. Of particular interest the Environmental Law No. (4) for year 1994 & its Executive Regulations issued in February 1995 include a full chapter of this Law (chapter 2) regulates the management of hazardous substances including chemicals.

A part from the law there is no specific legislation, concerning management of industrial hazardous materials (especially hazardous wastes) arising from the production in industrial sector. Egypt has issued a large number of environmental legislations governing importing, manufacturing, trade, usage of chemicals covering different areas as indicated before (mentioned in table 4-A). In these, there is lack of specificity concerning Hazardous wastes (HW) and tendency to combine it with non- HW within the same context. Some of these laws are Ministerial Decree 138 (1958) for organizing the import, handling and trading of toxic substances and its derivatives that are used in industrial processes, the Ministerial Decree 977 for year

1989 which stipulates the prohibition of freon gas use in manufacturing of aerosols, Ministerial Decree 91 (1959) specializing Law 21 for year 1958, which regulates the production, handling and importing of dangerous chemicals by setting the activities and conditions to be fulfilled by individuals/bodies permitted to undertake such activities; and conditions of the place of production and storage of these chemicals, which should be stored separately from other commodities. According to Law 4/1994 and its Executive Regulation, it is forbidden to deal with hazardous substances without authorization from the competent authorities. The competent Ministries, in cooperation with Ministry of State for Environmental Affairs and the Ministry of Health & Population have developed and promulgate lists of hazardous substances, these lists are controlled, revised and updated from time to time as appropriate, these lists are presented in *ANNEX (2)*.

The competent Ministries, after consulting with the EEAA, shall promulgate regulations establishing standards necessary to the protection of public health and the environment as mentioned in Article 25 of the Executive Regulation, which states the following:

It is forbidden to displace and use hazardous substances and wastes without a license from the competent authority indicated for each as herein below:

1. Hazardous agricultural substances and wastes, including pesticides and fertilizers - Ministry of Agriculture.

2. Hazardous industrial substances and waste - Ministry of Industry.

3. Hazardous pharmaceutical, hospital and laboratory substances and wastes and domestic insecticides - Ministry of Health.

4. Hazardous petroleum substances and wastes - Ministry of Petroleum.

5. Hazardous substances and wastes from which ionizing radiation is emitted - Ministry of Electricity - Nuclear Energy Authority.

6. Hazardous inflammable and explosive substances and wastes - Ministry of Interior.

7. In respect of other hazardous substances and wastes, the respective bodies competent to issue a license for their displacement shall be designated by a decree of the Minister of State for Environmental Affairs on the basis of a proposal by the CEO of the EEAA.

The Ministers heading the Ministries mentioned in this Article shall, each within his scope of competence and in coordination with the Minister of Health and the EEAA, issue a table of hazardous substances and wastes specifying:

- a. The types of hazardous substances and wastes falling within his Ministry scope of competence and their respective degrees of danger.
- b. The constraints to be observed in the displacement of each.
- c. The means of disposing of the empty containers of such substances after their displacement.
- d. Any other constraints or conditions the Minister deems important to add.

Article (26) from the Executive Regulations of Law No. 4/1994 shows how to get the hazardous substances license where article stated: The applicant for a license shall submit his application in writing to the competent authority as defined in **Article (25)** of these Executive Regulations in accordance with the following procedures and conditions:

1. Procedures for granting a license:

The license to handle hazardous substances and waste shall have a maximum validity period of five years unless an event entailing its review occurs. The competent administrative authority may, pursuant to the provisions of Article (40) hereof, grant temporary licenses for short periods as necessity dictates.

The body or individual wishing to obtain a license for the displacement of hazardous substances or waste shall submit an application containing the following data:

1-Handler of hazardous substances and waste:

- Name of establishment
- Address and telephone No.
- Site and area of establishment
- Contour maps of the site
- Level of underground water
- Safety equipment in the establishment
- Information concerning insurance
- Programme for monitoring the environment in the area surrounding
The establishment

- 2-Producer of hazardous substances and waste (full name, address, telephone and fax numbers).
- 3- A complete description of the hazardous substances and waste intended to be handled and the nature and concentration of the dangerous elements contained therein.
- 4- The amount of hazardous substances and waste intended to be handled annually and a description of the method of packing to be used (barrels - tanks - loose).
- 5- The means to be used in storing hazardous substances and waste and the storage period for each, as well as an undertaking to place a clear written description on the container indicating its contents, the degree of danger thereof and how to act in an emergency.
- 6- The available means of transport (by land - rail - sea - air - internal waterways), their routings and schedules.
- 7- A complete statement of the method intended to be used for the treatment and disposal of the hazardous substances and waste for the displacement of which a license is sought.
- 8- A commitment not to mix hazardous substances and waste with any other type of waste produced by social and production activities.
- 9- A commitment to keep registers containing detailed accounts of the sources, quantities and types of hazardous substances and waste, the rates and periods of their collection and storage and the means of their transport and treatment, to furnish such data on request, and not to destroy the registers for a period of five years running from the date they are first opened.
- 10- A commitment to take all procedures as are necessary to ensure the proper packing of hazardous substances and waste during the collection, transportation and storage phases.
- 11- A detailed description of the emergency plan for confronting all unforeseen circumstances which guarantees the protection of human beings and the environment.
- 12- A certificate of previous experience in the field of handling hazardous substances and waste.
- 13- A declaration of the veracity of data stated in such document.

2. Conditions for granting a license:

- 1- Completion of all required data.
- 2- Availability of personnel trained in the handling of hazardous substances and waste.
- 3- Availability of means, resources and systems required for the safe handling of these substances.
- 4- Availability of requirements to confront the risks which may result from accidents occurring during the handling of these substances.
- 5- That no harmful effects to the environment and public health shall result from the activity for which a license is sought.

The Period of License for Handling Hazardous Substances or Wastes and Revoking or Suspending Cases is mentioned in **Article (27)** of the Executive Regulation where it stated:

1. The licenses period:

The license to handle hazardous substances and waste shall be issued in consideration of a cash payment to be determined by a decree from the competent minister. The license shall be valid for a maximum period of five years subject to renewal.

2. Revoking or Suspending Cases:

The licensing authority may revoke the license or suspend the activity by a reasoned decision in the following cases:

- 1- If the license was issued as a result (of the submission) of incorrect data.
- 2- If the license violates the conditions of the license.
- 3- If the performance of the activity results in dangerous environmental effects which were unforeseen at the time the license was issued.
- 4- The emergence of sophisticated technology, which may, with minor modifications, be applied, and the use of which would lead to a marked improvement in the environment and the health of the workers.
- 5- If the EEAA concludes that it is unsafe to handle any of the substances and wastes.

3. The other necessary conditions to ensure the safe handling of these substances:

The licensing authority in coordination with the EEAA and the Ministry of Health may request the applicant to fulfill such other conditions as it deems necessary to ensure the safe handling of these substances,. In all cases, the applicant for a license

may not handle hazardous substances and waste before obtaining the license made out on the relevant form, which must be kept by the person in charge of the handling to be presented on request.

Article (33) of Law 4/1994 and Article (31) form its Executive Regulations declared the required precautions **in Producing or Handling the Hazardous Substances where Article (33) of Law stated:**

Those engaged in the production or circulation of hazardous Substances, either in gas, liquid or solid form, are held to take all precautions to ensure that no environmental damage shall occur. The owner of an establishment whose activities produce hazardous waste pursuant to the provisions of this Law shall be held to keep a register of such waste indicating the method of disposing thereof, and the agencies contracted with to receive the hazardous waste. The executive regulations shall determine the data to be recorded in the said register and the EEAA shall be responsible for following up the register to ensure its conformity with the facts.

And Article (31) form its Executive Regulations stated:

Those in charge of the production or displacement of hazardous substances, whether in their gaseous, liquid or solid states, shall take all due precautions to ensure the non occurrence of any environmental damage, and shall be held in particular to observe the following:

- (A) That the site on which such substances are to be produced or stored is selected with due regard to the conditions prescribed according to the type and quantity of those substances.
- (B) That the design of the buildings inside which hazardous substances are to be produced or stored conforms to the engineering standards to be observed for each type of such substances, as determined by a decree to be issued by the Minister of Housing after consulting the EEAA. The said buildings shall be subject to periodic inspections by the licensing administrative body.
- (C) That the conditions prescribed in respect of the means of transport or the storage sites of such substances are provided so as to guarantee that no harm shall come to the environment or to the health of employees or citizens.

- (D) That the technology and equipment used in the production of such substances shall not result in damage to the establishment, the environment or harm to the staff.
- (E) That buildings shall be adequately fitted out with safety, alarm, protection, combat, fire-fighting and first aid systems and equipment, in the numbers and quantities determined by the Minister of Labour and Manpower after consulting the EEAA, the Ministry of Health and the Civil Defense Department in coordination with the competent administrative authority.
- (F) That an emergency plan is in place to confront any potential accidents which may occur during the production, storage, transportation or handling of such substances, provided the plan is reviewed and approved by the licensing authority after consulting the EEAA and the Civil Defense Department.
- (G) That staff in these establishments are subjected to periodic medical checkups and that they are treated for any vocational diseases at the expense of the establishment by which they are employed.
- (H) That establishments producing hazardous substances insure their workers for the amounts to be determined by a decree from the Minister of Manpower in coordination with the Ministry of Insurance and Social Affairs, after consulting the EEAA and the Ministry of Health, provided the amounts of the insurance take into account the degree of danger to which each category of workers is exposed inside each productive unit.
- (I) That workers handling such substances are informed of the dangers involved and of the necessary precautions to be taken when handling them, that they are fully aware of all this information and that they have received adequate training in this regard.
- (J) That the inhabitants of the regions surrounding the sites where hazardous substances are produced or handled are informed of the possible dangers of these substances and the method of facing such dangers, and that they are familiar with the alarm systems to be used in case of an accident and with the procedures to be followed on its occurrence.
- (K) Establishments producing and handling hazardous substances are held to compensate citizens injured in the locations surrounding the production or storage sites for injuries caused by accidents resulting from these activities or from harmful emissions or leakages therefrom. Those assigned to the

production and handling of hazardous substances shall submit an annual report on the extent of their commitment in implementing the necessary precautions.

Article (32) from the Executive Regulations declared that establishments engaged in the production or importation of hazardous substances shall observe certain conditions, where the article states:

Container specifications:

- (A) The type of container in which these substances are placed must be suitable for the type of substance therein, tightly closed and difficult to damage.
- (B) The capacity of the container must be easy to lift or transportation without exposing it to damage or harm.
- (C) The inner lining of the container must be made of a material that is not affected by storage throughout the period when the substances contained therein are active.

Container information:

- (A) Contents of container, their active substance, and the degree of its concentration.
- (B) Total and net weight.
- (C) Name of producer, date of production and production number.
- (D) Nature of danger and symptoms of toxicity.
- (E) First aid procedures to be taken in case of exposure.
- (F) Safe method of opening, emptying and using container.
- (G) Safe storage method.
- (H) Methods of disposal of empty containers.

All the information shall be written in Arabic in a style that is easy for an ordinary person to read and understand, and the words must be legible and prominently displayed on the container. They must be accompanied by diagrams indicating the method of opening, emptying, storing and disposing of the containers as well as by the international symbols for danger and toxicity.

Moreover, environmental law 4/1994 and its executive regulation setup the legislations relative to hazardous wastes, which define environmental impairment, hazardous materials, wastes, and hazardous wastes. Thus articles that are mainly concerned with POPs, as a category of hazardous wastes, should be included/

modified; currently EEAA is taking the step forward for updating the executive summary for the Environmental Law 4/1999. Where Finida through the Egyptian Pollution Abatement Project (EPAP) is taking the main responsibility for such modifications.

Articles concerning hazardous waste are fully mentioned below.

Article (28)

The management of hazardous wastes shall be subject to the following rules and procedures

1-Engendering Hazardous Waste:

The establishment, which engenders hazardous waste, shall be held to do the following:

A-Try hard to reduce the rate at which such waste is produced, both quantitatively and qualitatively, by developing the technology used, employing clean technology and selecting alternatives for the primary product or the raw material which are less harmful to the environment and public health.

B-Categorize the wastes produced, in terms of both quantity and quality, and register it.

C-Establish and operate units to treat waste at source, provided the EEAA approves the treatment system as well as the technical specifications of these units and their operational programmes. In case of difficulty of treatment or disposal of hazardous waste at source, the establishment producing such waste shall be held to collect and transport it to the disposal sites determined by the local authorities and the competent administrative and environmental bodies. The displacement of such waste shall be subject to all the conditions and provisions prescribed in this respect by these Executive Regulations.

2-Stage of Collecting and Storing Hazardous Waste:

A-Determine specific locations for the storage of hazardous waste meeting safety conditions to prevent the occurrence of any harm to the public or to those persons exposed to such waste.

B-Store hazardous waste in special containers made of a solid, non-porous, leak-proof material. These containers are to be hermetically sealed and their capacity must be commensurate with the quantity of hazardous waste stored therein or conform to the standards set for the storage of such waste according to type.

C-Place a clear sign on the hazardous waste containers indicating their contents and warning of the dangers, which may result from handling them imprudently.

D-Lay down a schedule for the collection of hazardous waste so that it is not left for long periods in the storage containers.

E-Producers of hazardous waste shall be held to provide the above-mentioned containers, wash them after each use and not place them in public places.

3-Stage of Transporting Hazardous Waste:

A-It is prohibited to transport hazardous waste by other than the means of transport run by the establishments licensed to manage hazardous waste. Those means of transport must meet the following conditions:

1-Transport trucks shall be fitted with all safety equipment and shall be in good working condition.

2-The capacity of such trucks and their shift schedule shall be commensurate with the quantities of hazardous waste.

3-They shall be driven by trained drivers capable of taking independent initiatives, particularly in emergencies.

4-They shall bear clear signs indicating the dangerous nature of their cargo and the best manner of dealing with emergencies.

B-Routing of trucks transporting hazardous waste shall be determined and civil defense bodies shall be immediately notified of any changes therein, so as to enable them to act rapidly and decisively in emergencies.

C-Trucks transporting hazardous waste shall be prohibited from passing through residential and other populated areas and through the city centre during daytime.

D-The address of the garages where hazardous waste trucks are parked, as well as the number and date of their license must be notified to the competent authority.

E-Trucks transporting hazardous waste must be washed and sterilized after each use in accordance with the directives issued by the Ministry of Health in coordination with the competent administrative body designated in Article (40) of these Executive Regulations.

4-The following must be observed when authorizing the passage of ships carrying hazardous waste:

A-Prior notification is a requisite. The competent administrative body shall be entitled to withhold authorization if there is a risk of environmental pollution.

B-In case of authorization, all necessary precautions as prescribed in international conventions must be taken, and the ship must have the guarantee certificate referred to in Law No. 4 of 1994.

5-Stage of Treatment and Disposal of Hazardous Waste:

A-The sites selected to house utilities for the treatment and disposal of hazardous waste shall lie at a distance of at least three kilometers from populated and residential areas, and shall be held to meet the conditions and provide the equipment and installations set forth below:

1-The area of the site must be proportionate to the quantity of hazardous waste so that such waste does not remain in storage for extended periods.

2-The site shall be encircled with a brick wall standing at least 2.5 meters high.

3-The site shall be provided with more than one gate of suitable width, allowing the easy entry of trucks transporting hazardous waste.

4-The site shall be provided with a water source and W.C. facilities.

5-The site shall be provided with all the protection and safety requirements prescribed in labour and vocational health laws, as well as with a telephone line.

6-The site shall be provided with all the mechanical equipment, which can facilitate the work process.

7-The site shall be provided with warehouses equipped to preserve hazardous waste pending its treatment and disposal. Equipment shall differ according to the type of hazardous waste received by each utility.

8-The utility shall be provided with an incinerator for burning certain type of hazardous waste.

9-The utility shall be provided with the necessary equipment and installations for sorting and classifying certain types of hazardous waste with the intention of reutilizing and recycling them.

10-The site shall have a sanitary ditch of an adequate capacity for burying the incinerated remains.

B-Processes for the treatment of hazardous waste, which may be reused and recycled, shall be carried out within the following framework:

1-Reutilization of some hazardous waste as fuel to generate energy.

2-Recovery of organic solvents and their reutilization in extraction processes.

3-Recycling and reusing some organic substances from hazardous waste.

4-Reusing ferrous and non-ferrous metals and their compounds.

- 5-Recycling and reusing certain non-organic substances from hazardous waste.
- 6-Recovery and recycling of acids or alkalines.
- 7-Recovery of substances used in reducing pollution.
- 8-Recovery of certain components of ancillary elements.
- 9-Recovery of used oil and reutilizing it after its refinement, with due consideration to the relationship between environmental and economic returns.

C-Processes for the treatment of hazardous waste, which cannot be reutilized and recycled, shall be carried out within the following framework:

- 1-Injecting hazardous waste amenable to pumping into salt mines, wells and natural reservoirs in areas far from residential and populated areas.
- 2-Burying hazardous waste in pits specially prepared for this purpose and isolated from the other components of the environmental system.
- 3-types of living micro-organisms to bring about its decomposition.
- 4-Treating hazardous waste physically or chemically by evaporation, dilution, calcification, assimilation, sedimentation, etc.
- 5-Incineration in special incinerators designed to prevent the emission of gases and fumes into the surrounding environment.
- 6-Permanent storage (such as placing hazardous waste containers inside a mine).

D-Taking all procedures which guarantee limiting and reducing the production of hazardous waste through:

- 1-Developing and generalizing the use of clean technology.
- 2-Developing suitable systems for the management of hazardous waste.
- 3-Expanding the reutilization and recycling of hazardous waste after treatment whenever possible.

E-Setting a periodic programme to monitor the various components of the environmental system (organic and non-organic) in the sites of utilities and their surroundings for the treatment and disposal of hazardous waste. Licenses shall be withdrawn and work in the utility suspended upon the appearance of any indications of damage to the eco-systems surrounding the utility.

F-Establishments licensed to handle and manage hazardous substances and waste shall be responsible for any damage caused to third parties as a result of non-compliance with the provisions of these Executive Regulations.

The EEAA shall be competent to review the hazardous waste schedules, which are subject to the provisions of the Law, with the cooperation of the ministries concerned in regard to the schedules issued by them in this connection.

Article (29)

It is prohibited to construct any establishment for the purpose of treating hazardous waste except with a license issued by the competent governorate after consulting the EEAA, the Ministry of Health, the Ministry of Labour and Manpower, and the ministry concerned with the type of waste according to the provisions of Article (25) of these Executive Regulations, after ensuring that such establishment satisfies all the conditions which guarantee the safety of the environment and the staff employed thereat.

Disposal of hazardous waste shall be effected in accordance with the conditions and criteria prescribed in Article (28) of these Executive Regulations.

The Minister of Housing, after consulting the ministries of Health and Industry and the EEAA, shall determine the locations and conditions for the disposal of hazardous waste.

Article (30)

It is prohibited to import hazardous waste or to allow its entry into or passage through the territory of the Arab Republic of Egypt.

It is prohibited, without a license from the competent administrative department in the Ministry of Maritime Transport or in the Suez Canal Authority, each within the scope of its competence, to allow the passage of ships carrying hazardous waste, in the Territorial Sea or the Exclusive Economic Zone of the Arab Republic of Egypt, provided the EEAA is notified withal.

Article (33)

The owner of an establishment whose activity results in hazardous waste pursuant to the provisions of these Executive Regulations shall be held to keep a register of such waste and the method of its disposal, as well as of the names of the parties contracted with to receive the said waste, as follows:

- 1) Name and address of the establishment.
- 2) Name and job title of the person responsible for filling in the register.

- 3) The period covered by the current data.
- 4) The special conditions issued for the establishment by the EEAA.
- 5) A list of the types and quantities of hazardous waste resulting from the establishment activity.
- 6) Method of disposal thereof.
- 7) The parties contracted with to receive the hazardous waste.
- 8) Date on which the form is filled.
- 9) Signature of the officer in charge.

The EEAA shall follow up the information in the register to ensure its conformity with reality.

The Crimes in Law No. 4 of 1994 Concerning the Environment Protection (which is related with handling the hazardous substances):

Articles No. 29, 30,31,32,33 and 47 shows the violations concerning handling the hazardous substances. The articles 85, 88, 95 and 101 are the imposed penalties on those who commit these crimes as shown in the following tables:

Table 4 -B The Felonies in Law No. 4 of 1994 Concerning Environmental Protection which is Related to Handling Hazardous Substances

<i>S</i>	<i>Violation</i>	<i>The Penalty</i>	<i>Article No.</i>
1	<p>Handling the hazardous substances with no permit from the competent authority (article 25 - Executive Regulation)</p> <p>*The executive Regulation shows the procedures and conditions for granting the license (article 26, 27 - Executive Regulation).</p> <p>*Tables of hazardous substances and waste are issued by specialist Minister in coordination with the minister of Health (article 25 – Executive Regulation)</p>	<p>Imprisonment from 5: 15 years and a fine of 20.000 to 40.000 Egyptian pounds.</p>	<p>Article (29) And Article (88)</p>
2	<p>The importation of hazardous waste or allowing its introduction in to or its passage through Egyptian territories. The passage of ships carrying hazardous waste in territorial seas or in the exclusive maritime economic zone of the ARE without a permit from the competent authority (article 30 - Executive Regulation)</p>	<p>Imprisonment from 5 : 15 years and a fine of 20.000 to 40.000 Egyptian pounds. + Held to re-export the hazardous wastes subject of the crime on the criminal own expense</p>	<p>Article 32/1,32/2 And Article (88)</p>
3	<p>Exceeding the level of radioactivity or concentration of radioactivity substances in the air (as issued by the competent authorities)</p>	<p>Imprisonment from 5 : 15 years and a fine of 20.000 to 40.000 Egyptian pounds.</p>	<p>Article (47) And Article (88)</p>
4	<p>Violating the provisions of this law causing a permanent incurable disability to an individual</p> <p>*if the violation results in causing this infirmity to three or more persons</p> <p>*if the violation results in a death of a person</p> <p>*if the violation results in a death of three or more persons</p>	<p>Imprisonment not more than 10 years</p> <p>Imprisonment from 3 :15 years</p> <p>Temporary hard labour from 3: 15 years</p> <p>Permanent hard labour</p> <p>No prejudice to the imposition of any more sever penalty prescribed in another law</p>	<p>Article 95/1</p> <p>Article 95/2</p> <p>Article 95/2</p> <p>Article 95/2 And Article 101 Article (95) compared with Article (88)</p>

Table 4-C: -The Misdemeanor in Law No. 4 of 1994 concerning Environmental Protection, Which is related To Handling Hazardous, Substances

<i>S</i>	<i>Violation</i>	<i>The Penalty</i>	<i>Article No.</i>
1	Violating the rules and procedures of management the hazardous wastes in the executive regulation (article 30 – Executive Regulation)	Imprisonment for a period of not less than one year and /or a fine of ten thousands to twenty thousands Egyptian pounds.	Article (30) And Article (85)
2	The constructor of any establishment for the treatment of hazardous wastes without a license issued by the competent administrative authority (article 29 - Executive Regulation)		Article (31) And Article (85)
3	The disposal of hazardous wastes by violating the conditions and criteria issued by the executive regulation. (The Minister of Housing shall, after consulting with the Ministries of Health and Industry and the EEAA, designate the disposal sites and determine the conditions of the license to dispose of hazardous wastes)		Article (31) And Article (85)
4	Not taking the precautions in producing and circulating hazardous wastes (either in gas, liquid or solid form) so as not to damage the environment. (articles 31,32 - Executive Regulation)	Imprisonment for a period of not less than one year and /or a fine of ten thousands to twenty thousands Egyptian pounds.	Article (33) And Article (85)
5	When the owner of an establishment whose activities produce hazardous wastes doesn't keep a register of such wastes indicating the method of disposing and the agencies contracted with to receive the hazardous wastes (article 33 - Executive Regulation)		Article (33) And Article (85)

Egyptian Laws and Regulations for Managing Chemicals

1. Environmental Law No. 4/ 1994:

Article 29

It is forbidden, without a license from the competent administrative authority, to handle hazardous substances and wastes. The Executive Regulations of this Law explain the procedures and the conditions for granting such a license.

The Ministries, each in its field of competence, shall issue, in coordination with the Minister of Health and EEAA, a list of the hazardous substances and wastes as aforementioned in paragraph one of this article.

Article 30

Management of hazardous wastes shall be subject to procedures and regulations stated in the Executive Regulations of this Law. The Executive Regulations designate the competent authority, which, after consulting EEAA, will issue the tables of dangerous wastes to which the provisions of this Law shall apply.

Article 31

Without a license issued by the competent administrative authority after consulting the EEAA. Disposal of hazardous waste shall be in accordance with the conditions and criteria set forth in the executive regulations of this Law. The Minister of Housing shall, after consulting with the Ministries of Health and Industry and the EEAA, designate the disposal sites and determine the conditions of the license to dispose of hazardous waste.

Article 32

It is forbidden to import dangerous wastes or to allow its entrance into or passage through Egyptian territories. It is forbidden, without permit from the competent authority, to allow the passage of ships carrying hazardous wastes through territorial seas or the exclusive economic zone of the ARE.

Article 33

Those engaged in the production or circulation of hazardous materials, either in gas, liquid or solid form, are held to take all precautions to ensure that no environmental damage shall occur

The owner of an establishment whose activities produce hazardous waste pursuant to the provisions of this Law shall be held to keep a register of such waste indicating the method of disposing thereof, and the agencies contracted with to receive the hazardous waste. The executive regulations shall determine the data to be recorded in the said register and the EEAA shall be responsible for following up the register to ensure its conformity with the facts.

Article 37:

It is prohibited to throw, treat **or burn garbage** and solid waste except in special sites designated for such purpose which are far from residential, industrial or agricultural areas as well as from water-ways. The executive regulations of this Law shall determine the specifications and conditions of such sites and their minimum distance from the areas referred to hereinabove.

Local units shall, in agreement with the EEAA, designate the sites for burning, throwing or treating garbage and solid waste according to the provisions of this article.

Article 47:

The level of radioactivity or concentration of radioactive substances in the air shall not exceed the permissible limits as determined by the competent authorities in accordance with the executive regulations of this Law.

Article 85:

Whoever violates the provisions of Articles 30, 31 and 33 of this Law shall be imprisoned for a period of not less than one year and/or fined ten thousand to twenty thousand Egyptian Pounds.

Article 88:

Any person who violates the provisions of articles 29, 32, and 47 of the present law shall be punished by imprisonment for a term of not less than five years and a fine of twenty thousand Egyptian Pounds to forty thousand Egyptian Pounds. Whoever violates the provisions of Article 32 shall be held to re-export the hazardous wastes subject of the crime at his own expense.

Article 95:

Whoever intentionally violates the provisions of this Law shall be punished by imprisonment for a term of not more than 10 years if such violation results in causing a permanent incurable disability to an individual. The penalty shall be imprisonment if the violation results in causing this infirmity to three or more persons.

If the violation results in the death of a person, the penalty shall be temporary hard labour, and if it results in the death of three persons or more the penalty shall be permanent hard labour.

Article 101:

The imposition of the penalties stipulated in this Law shall be without prejudice to the imposition of any more severe penalty prescribed in another law.

Moreover, law 4/1994 and its executive regulation has set in Annex 6 the **PERMISSIBLE LIMITS OF AIR POLLUTANTS IN EMISSIONS** emitted by different activities, which are gaseous, solid, liquid or steam pollutants emitted by various establishments within given periods and likely to impact adversely on public health, animals, plants, material. Furthermore, Annex 8 of the law 4/1994 has set the **MAXIMUM LIMITS OF AIR POLLUTANTS INSIDE THE WORK PLACE ACCORDING TO TYPE OF INDUSTRY** tables are illustrated in *Annex (3)*.

2. Other laws and Regulations:

A. Regulations Governing Handling Of Industrial Chemicals:

Law No. 499/1995:

Stated that the Ministry of Industry is the responsible agency for handling of poisonous and non-poisonous chemicals used in Industry. The Ministry of Industry issued the rules and regulations for importation and trade of these chemicals.

Decree No. 471/1995:

The Ministry of Industry must be informed of any activity concerning trade in poisonous or non-poisonous substances including the name of the shop owner, the number of this license and the kind of trade.

Decree No. 138/1958, Amended by Decree No. 91/1959:

1. For trading in poisonous or non-poisonous chemical used in industry, a license must be issued from the Industrial Control Authority (ICA).
2. It is prohibited to have such a license together with ownership of any pharmaceutical enterprise.
3. This license is personal and cannot be transferred or inherited.
4. Poisonous materials should be kept in suitable packages with a label showing the name of the material, the supplying factory, the quantity contained. The word poisonous should be written in Arabic and one foreign language in red and in a clear place.
5. The owner of the shop or store must keep a logbook with its pages serially numbered and stamped by the ICA. Any supply or selling should be indicated in this book.

Decree No. 342/1962:

Added the following to MD 138/1958:

The non-poisonous materials, which are imported or bought by the factories for manufacturing, their products are to be excluded from the license mentioned in MD 138/1958.

[Law No. 21/1958 concerning Organization and Development of Industry:

Chapter 2, articles 14, 15 authorize the Ministry of Industry to put specifications for raw materials and industrial products. The Minister of Industry issued the rules to be strictly followed in the production of more than 150 commodities.

Law No. 21/1957 Concerning the Egyptian Organization for Standardization and Quality:

The organization issued specifications for chemicals and household commodities such as: Red lead oxide primer, Matches, paint solvents, fuel, pigments, dyes, food additives, perfumes, soap detergents, clothes and blankets.

B. Regulations Governing Pesticides Use:

Agricultural Law no. 53/1966 concerning specification of pesticides to be used in Egypt, procedures, for their registration and conditions for use.

Article 78

Agricultural pesticides are those chemicals and formulations used to control plant diseases, pest insects, rodents, and weeds, other organisms detrimental to plants, animal insects and parasites.

Article 79

Pesticide Committee is to be formed by a ministerial decree from the Minister of Agriculture. The task of the Committee is to specify pesticides to be used in country, determine their specifications, procedure of their registration and condition for use.

Article 80

Based on the recommendations of the Committee, the Minister of Agriculture issues ministerial decree that put the articles of the agricultural law into action particularly those concerning:

1. Kinds of pesticides to be imported for local use, their specifications, conditions of importation and handling.
2. Conditions and procedures of licensing for pesticides importation and trade.
3. Procedures of pesticides registration, registration renewal, registration fees.
4. Methods of pesticides sampling and analysis, ways of disapprobation by the producers on results of chemical analysis, procedures to be followed in considering approbation and judging its validity, and the fees to be paid for such approbation.

Article 82

Advertising or distribution of information on pesticides should comply with its specification and conditions for handling and registration and also with the recommendations of the Ministry of Agriculture for their use.

Decree No.874 for the year 1996

Ministry of Agriculture's decree No.874 for the year 1996

- Panning testing, importing, handling, use, formulation of pesticides:
- Legal requirements for handling hazardous substances & wastes
- Record keeping practices that accurately identify the quantities of such hazardous substances, constituents which are significant in quantity or in potential harm to human health or the environment
- Use of appropriate containers for such hazardous substances
- Labeling practices for the identification of any containers used for storage, transport of such hazardous substances
- Furnishing of information on such hazardous substances to persons transporting storing, or using it
- Use of a manifest system and any other reasonable means to assure that all such hazardous substances are handling in the proper way

- Contingency plans for effective action to minimize unanticipated damage from any hazardous substances accident
- Panning importation trading, production and use of specific hazardous commodities.

Ministerial decree No. 3209 for year 2003

Issues by Minister of agriculture concerning agriculture pesticides with regards to restriction of the production, importing and handling of agriculture pesticides before registration according to rules set-b Ministry of Agriculture in this decisions (all substances used in controlling the agriculture pesticides) according to definitions issued from the Organization of Food and Agriculture (FAO).

Annexes for concerning the Ministerial Decree 3209 for year 2003 concerning agricultural pesticides.

Annex (1): requirements for registering the pesticides:

Model A: request for registering the agricultural pesticides with the normal / regular system or METOO system.

Model B: request for conducting laboratory experiments for registering the agricultural pesticides.

Model C: request for conducting Laboratory analysis for Agricultural Pesticides.

Model D: recommendations notice for pesticides.

Annex (2): pesticides registration certificate:

Identification card for pesticides

Annex (3): A request model for the approval of importing the agricultural pesticides:

Import approval of model.

Request for special use, import approval.

Import approval for agricultural pesticides concerning auxiliary agent/ material.

Annex (4):

License request model, or reviewing the license for operating the production of pesticide factory

Annex (5):

Methods for testing the efficiency /effectiveness of pesticides packages and comparing it to measurable standards. (As international standards):

Annex (6):

_License request model for trading of agriculture pesticides.

License model for trading in agricultural pesticides.

Conditions that should be available in the storage area for agricultural pesticides.

Annex (7):

Methods and procedures for taking samples from pesticides for analysis purpose.

Annex (8):

Inspection investigation form, and taking a sample of agricultural pesticides from imported goods.

Inspection investigation form for free zones and customs authorities.

Inspection and samples taking of agricultural pesticides from stock production prepared locally, within Egyptian production factories for pesticides manufacturing.

Inspection test for taking samples of agricultural pesticides for the stored pesticides to check the validity / expiry date.

Annex (9):

Analysis certificate model

Assurance certificate form

Expiry date of agricultural pesticides

Licenses for clearance of pesticides formula

Clearance license on ingredients pesticides materials

Clearance license on auxiliary's materials or solvents for preparing agriculture pesticides

Clearance license on pesticide order for personal use.

Ministerial decree No. 173 for year 2004

For modification of the 5th item of the ministerial decree 3209 for year 2003, concerning deleting the items of experimenting/trial on registering pesticides with the METOO system according to what is followed by Environmental Protection Agency (EPA).

Ministerial Decree NO. 874, year 1996

Restricting the experimentation or import or dealing with pesticides whatever they are raw material or other ingredients in any form declared in the attached tables of this decree and classification as group “ B “ that could be human carcinogenic either through trading or for personal use. According to the classification of US EPA agency, also the classification of IARC/ WHO.

<i>Group B</i>	Type of pesticides
<i>Propargite</i>	Pesticides
Mancozeb	Fungicide
Maneb	Fungicide
Chlorothalonil	Fungicide
Folpet	Fungicide
Procymidone	Fungicide
Iprodione	Fungicide
Captan	Fungicide
Cyproconazole	Fungicide
Alachlor	Fungicide
Propoxur	Fungicide
<i>Group C</i>	
Dimethoate	Insecticides
Cypermethrin	Insecticides

Permethrin	Insecticides
Carbaryl	Insecticides
Tetrachlorovinphos	Insecticides
Etofenprox	Insecticides
Dicofol	Pesticides
Clofentezine	Pesticides
Fosetyl - Aluminium	Fungicide
Propiconazole	Fungicide
Triadimenol	Fungicide
Benomyl	Fungicide
Hexaconazole	Fungicide
Oxadixyl	Fungicide
Teboconazole	Fungicide
Triadimefon	Fungicide
Terbutryn	Insecticides
Atrazine	Insecticides
Trifluoralin	Insecticides
Bromacil	Insecticides
Metolachlor	Insecticides

Oxyfluorfen	Insecticides
Oxadiazon	Insecticides
Bromoxynil	Insecticides
Linuron	Insecticides
Simazine	Insecticides
Pendimethaline	Insecticides
Dichlobenil	Insecticides

C. Regulations Governing Handling of Pharmaceutical and Chemicals in Consumer Goods of Ministry of Health:

Law No. 127/1955 (Pharmacy Practicing)

It regulates pharmaceutical affairs including establishments, personnel, products and ingredients. According to this law the ministry of the health applies full control over dosage forms of drugs, cosmetics, household insecticides and disinfectants, biological preparations and diagnostics, and medical devices.

Law No. 183/1960 concerning Narcotics Control:

It sets regulations for handling and control of narcotics.

Ministerial Decree No. 429/1969

It sets conditions for storage and licensing procedure concerning narcotic substances.

Presidential Decree No. 450/1980

Concerning establishment of the national council for addiction control.

Ministerial Decree No. 487/1985 Deals with psychoactive substances and its preparations. It annexes three tables dealing with three different levels and categories.

Law No. 367/1954 Chapter 2, 3, 4.

It regulates medical diagnostic laboratories, scientific research lab. And biological preparations laboratories.

Law No. 10/1966 and its Amendments

Concerns food control.

Ministerial Decree No. 163/1967

It controls importation of food additives.

Decree No. 798/1957 and Ministerial Decree No. 679/1983

Deal with the requirements to be fulfilled in cooking ware containers and packages used for food processing and packaging.

Ministerial Decree No. 178/1975 and its Amendments

Concerning coloring additives permitted in foods.

Ministerial Decree No. 16/1964 and its Amendments

Regulates the use of food preservatives.

Law No. 53/1966

Authorizes the Minister of Agriculture to regulate and organize investigation of food products of animal origin and the freeze foodstuff.

Ministerial Decree No. 10/1957

Concerning licensing of household insecticides.

Law No. 118/1979

Concerning import and export of pharmaceutical and chemicals in consumer goods section 5, chapter 1, and Article 73 defines the role of the general organization for control of imports and exports. Under this law it is prohibited to import or export any commodity not fulfilling the specifications laid down by this organization (GOCIE). The minister of economy issued more than decrees dealing with control of many goods and commodities.

Ministerial Decree No. 315/1993

Prohibits the importation of blue asbestos among a list comprising six other chemicals. Occupational health and safety legislation is a principal instrument for regulating the conditions under which work is carried out. According to the law No.137 of 1981 by Ministry of Manpower and Immigration and its DecreeNo.55 of 1983 is a comprehensive Act on the work environment, which constitutes a frame work for the most important occupational health and safety principals and which provides the bases for more details lower level provisions or adjacent legislation.

4.3 Existing Legislation by Use Category Addressing Various Stages of Chemicals from Production/ Import to Disposal

Table 4-D: Overview of Legal Instruments To Manage Chemicals by Use Category

<i>Category of Chemical</i>	<i>Import</i>	<i>Production</i>	<i>Storage</i>	<i>Transport</i>	<i>Distributin/ Marketing</i>	<i>Use/ Handling</i>	<i>Disposal</i>
Pesticides (agricultural, public health and consumer use)	✓	✓	✓	✓	✓	✓	✓
Fertilizers	✓	✓	✓	✓	✓	✓	✓
Ind. Chemicals (used in manufacturin g/ Processing facilities)	✓	✓	✓	✓	✓	✓	✓
Petroleum Products	✓	✓	✓	✓	✓	✓	✓
Consumer Chemicals	✓	✓	✓	✓	✓	✓	✓

Chemical Wastes	✓	☐	☐	✓	☐	☐	✓
--------------------	---	---	---	---	---	---	---

☐ Not Available
✓ Available

4.4 International conventions and Obligations:

The Egyptian Environmental Affairs Agency (EEAA) is the focal point for International Conventions concerning managing of chemicals and wastes. Moreover, EEAA formulated national committee to plan, advice, follow-up and monitor all activities related to the three Conventions (Stockholm, Basel, PIC) with a define scope of work in order to ensure a high level of coordination, cooperation, harmonization and coherence of the activities for proper manage of hazardous substances and wastes (including expired, out specifications/ banned chemicals and empty containers of hazardous chemicals).

a. Stockholm Convention:

The Stockholm Convention for Persistent Organic Pollutants (POPs) that entered into force on the 17th of May 2004. Egypt has adopted the convention in May 2001 and joins the convention on the 2nd of May, 2003 after 90 days of the ratification date (13th of January, 2003). The Convention will enter into force on the ninetieth day after the date of deposit of the fiftieth instrument of ratification, acceptance, approval or accession, where it will become legally binding on the 17th may 2004.

The objective of the convention, as stated in article 1, “is to protect human health and the environment from persistent organic pollutants (POPs)”. The Convention obliges Parties to:

1. Take measures to reduce or eliminate releases from intentional production and use, unintentional production, and from stockpiles and wastes of 12 POPs (articles 3, 5 and 6);
2. Eliminate production and use of nine intentionally produced POPs, subject to certain time-limited and general exemptions (annex A: aldrin, chlordane, dieldrin, endrin, heptachlor, Hexachlorobenzene (HCB), mirex, toxaphene, and Polychlorinated biphenyls (PCBs), article 3.1.a)
3. Take measures to restrict the production and use of one intentionally produced POP (Annex B: DDT); article 3.1.b)
4. Reduce the total releases of unintentionally produced POPs with the goal of their continuing minimization and, where feasible, ultimate elimination

(Annex C: polychlorinated dibenzo-p-dioxins and dibenzofurans, HCB, PCBs); article 5)

5. Take appropriate measures so that waste POPs, including products and articles upon becoming wastes, are handled, collected, transported and stored in an environmentally sound manner, and are disposed of in such a way that the POPs content is destroyed or irreversibly transformed so that they do not exhibit the characteristics of POPs, or otherwise disposed of in an environmentally sound manner when destruction or irreversible transformation does not represent the environmentally preferable option or the POPs content is low (article 6.1.d.i,ii)
6. Not to permit POPs waste to be subjected to disposal operations that may lead to recovery, recycling, reclamation, direct reuse or alternative uses of POPs
(Article 6.1 .d .iii)
7. Encourage the implementation of national regulations to prevent development of new chemicals with POPs characteristics by promoting changes in industrial materials, processes, and products that can create POPs; and,
8. Article 6.2 of the Stockholm Convention concerning measures to reduce or eliminate releases from stockpiles and wastes left open a number of definitional issues. It required the Conference of Parties (COP) to cooperate closely with the appropriate bodies of the Basel Convention in addressing these, in particular to establish appropriate levels of destruction and irreversible transformation for POPs wastes; to determine what methods would constitute environmentally sound disposal; and to establish as appropriate the concentration levels that would define the low POPs content..

b. Basel Convention:

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted on 22nd of March 1989 in response to widespread concern about the dumping of hazardous wastes in developing countries by companies of developed

countries. The convention entered into force on May 1992 and by December 2002 there were 153 Parties to the Basel Convention. Egypt has ratified the Convention on 1993.

Basel Declaration adopted by the fifth meeting of the Conference of the Parties (COP5) on December 1999 states that: *“The fundamental aims of the Basel Convention [are] the reduction of transboundary movements of hazardous wastes and other wastes subject to the Basel Convention, the prevention and minimisation of their generation, the environmentally sound management of such wastes and the active promotion of the transfer and use of cleaner technologies”*

As wastes, all of the POPs currently listed in the Stockholm Convention are classified as hazardous wastes in Annex VIII of the Basel Convention (under A1180, A3180, A4030, A4110 and A4140). Article 2, paragraph 8 of the convention defines ‘Environmentally Sound Management (ESM)’ as taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes. The notification and consent procedures of the convention require that any transboundary movement (export/import/transit) is only permitted when the movement itself and the ultimate disposal of the concerned hazardous wastes are

Environmentally sound. The Importing Party must consent to the import in writing. In addition, articles 4.2(c), 4.2(g), and 4.8, in particular, provide obligations regarding the ESM of wastes subject to the Basel Convention.

Annex IV of the Convention contains the list of disposal operations. It identifies a list of operations that occur in practice that trigger the prior written informed consent procedure. Once the competent authority receives a notification, the obligations in Article 4 (2)(e), which require that the transboundary movement of hazardous wastes be ‘managed’ in an environmentally sound manner, are triggered. ‘Management’ is defined in the convention as “the collection, transport and disposal of hazardous wastes or other wastes, including after-care of disposal sites” (Art.2.2). **Annex (4) (list Article 2, 4 and Annex VIII of Basel Convention).**

Moreover, the obligations in the Basel Convention as well as the supportive technical guidelines adopted by the COP pursuant to article 4(8) provide a set of internationally accepted guidance for the environmentally sound management of POPs as wastes. In the preparation of technical guidelines, the parties have given due consideration to the specific situation of developing countries, in particular to those countries that do not have the technical capacity, the necessary facilities or suitable disposal sites to dispose of these wastes in an environmentally sound manner or for which locally affordable and sound solutions do not exist for certain waste streams (e.g. used oils, contaminated soil). In addition, because new technologies are being developed to dispose of POPs as wastes, the Parties retain the possibility to adjust to technology changes through the preparation of new or expanded technical guidelines for the ESM of these wastes as required under the Basel Convention.

During the sixth meeting of the conference of the parties (COP6) of the Basel Convention in December 2002 adopted decisions encouraging the Open-Ended Working Group (OEWG) to complete the preparation of the technical guidelines on the environmentally sound management of POPs as wastes in 2003 for eventual adoption by the seventh meeting of the Conference of the Parties (COP7). It also requested the OEWG to continue to reinforce its cooperation with the appropriate subsidiary body (ies) of the Stockholm Convention on POPs to ensure consistency in implementation and mutual support between the Basel and the Stockholm Conventions.

Basel and Stockholm Conventions Interrelationship:

Some of the key interrelationships between the Basel and the Stockholm convention concerning POPs are:

1. All of the POPs currently listed in the Stockholm Convention are also classified as hazardous wastes under the Basel Convention;
2. Both conventions require POPs wastes to be managed in accordance with ESM practices, but the Stockholm Convention does not allow POPs wastes to be recovered, recycled or reused;
3. The COP to the Basel Convention has adopted several sets of technical guidelines prepared by its technical working group that concern, or are related to, POPs as wastes including technical guidelines on certain disposal operations and technical guidelines on PCBs; and

4. Article 6.2 of the Stockholm Convention states that the COP shall cooperate closely with the appropriate bodies of the Basel Convention, inter alia, to establish appropriate levels of destruction and irreversible transformation, determine methods that constitute environmentally sound disposal, and establish concentration levels of chemicals to define “low POPs content” for the purposes of article 6.1 of the convention.

C. The Rotterdam Convention on the Prior Informed Consent (PIC) procedure for Certain Hazardous Chemicals and Pesticides in International Trade

The objective of these convention is to promote shared responsibility and cooperative efforts among parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to their environmentally sound use, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to parties.

There are 73 parties has signed the convention and 58 has ratified. Egypt didn't sign the convention. The convention has been adopted in 1998 entered into force on the 24th of February 2004.

The convention creates legally binding obligations for the implementation of the Prior Informed Consent (PIC) procedure based on the existing voluntary PIC procedure, operated by UNEP and FAO since 1989.

a. The convention scope is applied to:

- (1) Banned or severely restricted chemicals; and
- (2) Severely hazardous pesticide formulations.

b. This Convention does not apply to:

- (1) Narcotic drugs and psychotropic substances;
- (2) Radioactive materials;
- (3) Wastes;
- (4) Chemical weapons;
- (5) Pharmaceuticals, including human and veterinary drugs;
- (6) Chemicals used as food additives;
- (7) Food;
- (8) Chemicals in quantities not likely to affect human health or the environment provided they are imported:
 - (a) For the purpose of research or analysis; or
 - (b) By an individual for his or her own personal use in quantities reasonable for such use.

Obligations of Egypt on Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade:

- a. Each Party shall designate one or more national authorities that shall be authorized to act on its behalf in the performance of the administrative functions required by this convention.
- b. Each Party shall seek to ensure that such authority or authorities have sufficient resources to perform their tasks effectively.
- c. Each Party shall, no later than the date of the entry into force of this convention for it, notify the name and address of such authority or authorities to the Secretariat. It shall forthwith notify the Secretariat of any changes in the name and address of such authority or authorities.

- d- Each Party shall transmit to the Secretariat, as soon as possible, and in any event no later than nine months after the date of dispatch of the decision guidance document referred to in paragraph 3 of article 7, a response concerning the future import of the chemicals listed in Annex III.
- e- National authorities shall notify competent authorities of the final regulatory actions (appropriate legislative or administrative measures) with respect to the import of chemicals listed in annex III.
- f- The Parties shall, with respect to regional expert cooperate with the convention secretariat in promoting technical assistance and information exchange.
- g-Each party shall, ensure the prohibition of the production and use of chemicals that are restricted during imports for reasons that have mentioned by the convention.
- h- Each Party shall ensure that chemicals listed in annex III are not exported from its territory to any importing Party that has transmitted an interim response to restrict such chemicals. **Annex (5) (list article 7 and annex III of Rotterdam Convention (PIC)).**

4.5 Comments / Analysis

This chapter covers in detail the various legislative and regulatory aspects pertaining to the management of chemicals. Various Laws and Decrees are compiled in table 4.A. In essence and through the Environmental Law No.4 of 1994 and its Executive Regulations (ER) of 1995, the MSEA undertakes the national coordinating regulatory function for environmental protection and pollution control. The Law has a specific comprehensive chapter regulating the management of hazardous substances including chemicals.

In addition other Ministries and Agencies have issued much other legislation governing import, manufacture, trade and use of chemicals covering different areas as:

1-The Ministry of Industry has issued laws and regulations governing importing, manufacturing, trading, and handling of chemicals used in industry.

2-The Ministry of Agriculture has issued laws and regulations governing importing, manufacturing, trading, and handling of chemicals used in Agriculture.

3-The Ministry of Petroleum has issued laws and regulations governing importing, manufacturing, trading, and handling of chemicals used in petroleum.

4-The Ministry of Health and Population has issued laws and regulations governing importing, manufacturing, trading, handling and usage of pharmaceuticals, radioactive substances and insecticides.

5-The Ministry of Interior has issued laws and regulations governing importing, manufacturing, trading, and processing and usage of explosives.

6-Regulations governing operation of nuclear reactors, atomic energy activities, monitoring of radiation levels and disposal of radioactive wastes are the responsibility of Atomic Energy Authority affiliated to the Ministry of Electricity and Energy.

Analysis of the present situation and in view of previous working experience tends to indicate that the present regulatory infrastructure is to an extent compatible with international trends. Perhaps it may need some adjustments, reinforcement and ultimately

unification to meet fully the national and international mandates. The most important aspect however, would indulge proper enforcement coupled with educated general and technical awareness.

It should be mentioned that in order to support the implementation of the Environmental Law and other related Laws and Decrees, a strategy for management of hazardous substances and wastes is being drafted as a part of the national environmental strategy. According to this strategy, a clear scope of policies and the definition of institutional responsibilities and capacity building of institutions to be involved in hazardous substances and wastes management should be an immediate priority in order to get an efficient administrative control system in place.