

Government of the Republic of Zambia

Statutory Instrument No125 of 2001

**Environmental Protection and Pollution Control Act No 12 of 1990
The Hazardous Waste Management Regulations (Statutory Instrument No125 of
2001)**

IN EXERCISE of the powers contained in section *fifty-five* and *ninety-six* of the Environmental Protection and Pollution Control Act, and in consultation with the Council, the following regulations are hereby made:

Preliminary

Title	1. These regulations may be cited as the Hazardous Waste Management Regulations, 2001.
Interpretation	2. In these Regulations, unless the context otherwise requires: “The Act” means the Environmental Protection and Pollution Control Act No. 12 of 1990. “Co-incineration” means incineration by use of hazardous waste in addition to other fuels. “Collection” means removing waste material for the purpose of disposal. “Competent Authority” means the Environmental Council established under section <i>three</i> of the Act. “Country of import” means the country to which a transboundary movement of hazardous waste is planned, or takes place for the purpose of disposal therein, or for the purpose of loading prior to disposal in an area that is not under the jurisdiction of any country. “Developer” means any person who proposes to undertake a new project or to repair or extend an existing project which falls within the list of projects provided for in the First and Second Schedules of the Environmental Impact Assessment Regulations and who is responsible for obtaining the appropriate authorisation. “Disposal of hazardous waste” means the storing, handling, processing, treatment and utilisation and final location of hazardous waste to ; “Environmentally sound management of hazardous waste” means taking all reasonable and practical steps to ensure that hazardous waste is managed in a manner, which will protect human health, animals, plants or the environment against adverse effects which may result from such waste. “Final disposal” means operations, which do not lead to the possibility of resource recovery, recycling or reclamation, direct re-use or alternative uses. “Generator” means any person whose activity produces hazardous waste or if that person is not known, the person who is in possession and control of such waste. “Hazardous waste” means waste, including objects, articles or substances, which is poisonous, corrosive, irritant, explosive, inflammable, toxic or harmful to man, animal, plant or the environment. “Hazardous waste disposal site” : means the land on which hazardous waste disposal facilities are physically located;

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1997

“**Illegal traffic**” means any movement of hazardous waste, which takes place without the consent of the Competent Authority.

“**Incineration**” means the oxidation by burning at high temperature of hazardous waste so that it is rendered less harmful or inert with or without the recovery of combustion heat generated.

“**Landfill**” means a waste disposal site for the deposit of waste on to or into land, including internal waste disposal sites but excludes facilities where waste is unloaded in order to permit its preparation for further transport for recovery, treatment or disposal elsewhere, and temporary deposit of waste prior to recovery, treatment or disposal

“**Management**” means the handling, separation, collection, transportation, storage, treatment, recycling and disposal of hazardous waste, including after-care of disposal sites.

“**Operator**” means a person charged with the responsibility of managing a hazardous waste disposal site or facility;

“**Polluter**” means the person who contributes to or creates a condition of pollution.

“**Pre-treatment or treatment of hazardous waste**” means the physical, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.

“**Receiving Country**” means the country to which a transboundary movement of hazardous waste is planned, or takes place for the purpose of disposal in that country, or for the purpose of loading prior to disposal in an area that is not under the jurisdiction of any country;

“**Recovery**” means operations which lead to the possibility of resource recovery, recycling, reclamation, direct re-use or alternative uses.

“**Storage of hazardous waste**” means the keeping of the hazardous waste for a reasonable period under conditions which will prevent its release to the environment until appropriate recovery, treatment or disposal facilities are provided.

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“**Transboundary movement**” means any movement of hazardous waste or other wastes from an area under the national jurisdiction of one country to, or through an area under the national jurisdiction of another country, or to or through an area not under the national jurisdiction of any country;

“**Transit country**” means any country, other than the country of import or export, through which a transboundary movement of hazardous waste is planned or takes place.

“**Transportation of hazardous waste**” means the movement of hazardous waste from the place at which it is generated until it arrives at the storage or the site of disposal; and

“**Waste**” means garbage, refuse, sludges and other discarded substances resulting from industrial and commercial operations and from domestic and community activities, intended to be disposed of, or are disposed of or are required to be disposed of, but does not include waste water as defined in Part IV of the Act.

Application

3. (1) These Regulations apply to the control and monitoring of generation, collection, storage, transportation, pre-treatment, treatment, disposal, export, import and transboundary movement of hazardous waste as listed in Fourth Schedule or any waste specified in Sixth Schedule, if that waste exhibits characteristics found in the Fifth Schedule to these Regulations.

(2) These regulations shall not apply to:

- a) domestic waste; or
- b) non-hazardous waste.

License to generate and store hazardous waste

4. (1) No Person shall generate hazardous waste without license from the Competent Authority.
- (2) The application to generate and store hazardous waste shall be made to the inspectorate in Form HWM1 in the first schedule and shall be accompanied by the fees set out in the Third Schedule.
- (3) The license under this regulation shall be as set out in Form LHWM1 in the Second Schedule.
- (4) Where a person is licensed to generate waste but does not have a license to store waste, the person shall take hazardous waste to a person licensed to store waste on such terms and conditions as two agree.

License to store hazardous waste

5. (1) No person shall store hazardous waste without a license from the Competent Authority.
- (2) A license to store hazardous waste shall be issued subject to the following conditions
- (a) the storage area shall be of appropriate impermeable materials with a bund wall constructed around it;
 - (b) the containers used for storage shall conform to the specifications as outlined in the Seventh Schedule, and shall be strong enough to hold the hazardous wastes for a specified period of time;
 - (c) an assurance that there is or likely to be minimum or no chemical reaction during storage;
 - (d) the storage site shall be secure to prevent unauthorised access and notices shall be clearly placed to warn anybody of the dangers;
 - (e) there is a plan or program for final disposal in place;
 - (f) the quantities to be stored shall depend on the hazard characteristics and shall not exceed permissible amounts as specified in the licence or permit;
 - (g) monitoring for contamination of the environment by the stored materials shall be conducted by the operator and results shall be submitted to the Competent Authority regularly as specified in the licence;
 - (h) different classes of waste shall be stored separately; and
 - (i) there shall be security and emergency procedure or plan in place.

(3) Where contamination is observed to have occurred, the operator shall take such steps as to prevent the effects of such hazardous waste from affecting the environment and shall immediately notify the Competent

Authority.

- (4) Where an application to generate and store hazardous waste is not granted, the Competent Authority shall state the reasons for such refusal.

License to transport hazardous waste

6 (1) No person shall transport hazardous waste without a licence from the Competent Authority.

- (2) An application to transport waste shall be made on Form HWM 2 in First Schedule and shall be accompanied the fee set out in the Third Schedule.
- (3) The license under this regulation shall be as set out in Form LHWM 2 in the Second Schedule.
- (4) The license to transport hazardous waste shall be subject to the following conditions-
- a) the transportation of hazardous waste shall be undertaken according to approved times on approved routes and in approved vehicles with approved labels.
 - b) the transporter of hazardous waste shall provide for security and an emergency procedure or plan; and
 - c) the transporter of hazardous waste shall specify the final destination of the transportation.
- (5) The generator of hazardous waste shall notify the Competent Authority using the notification form HWM 5 in the First Schedule about the proposed transportation, stating the licensed transporter or final licensed disposal facility.
- (6) Where an application to transport hazardous waste is not granted, the Competent Authority shall state the reasons for such refusal.

7 (1) No person shall pre-treat or treat hazardous waste without a licence from the Competent Authority.

Licence to pre-treat or treat hazardous waste

- (2) An application to pre-treat or treat hazardous waste shall be made on Form HWM 3 in the First Schedule and shall be accompanied by the fee set out in the Third Schedule.
- (3) The license under this Regulation shall be as set out in Form LHWM 3 in the Second Schedule.
- (4) The license to carry out pre-treatment of hazardous waste shall be subject to the following conditions:
- (a) the licensee shall keep records of all types, nature and quantities of hazardous waste pre-treated or treated;
 - (b) the licensee shall provide regular reports to the Inspectorate on these activities as per conditions of the licence;

- (c) the licensee shall develop improvement programmes on the operations; and
- (d) the licensee shall provide security and emergency procedure or plan.

(5) Where a person is generating hazardous waste under these Regulations without a license to treat or pre-treat hazardous waste, that person shall take the hazardous waste to a person licensed to treat hazardous waste on such terms and conditions as the two shall agree.

(6) Where an application to pre-treat or treat hazardous wastes is not granted, the Competent Authority shall specify the reasons for such refusal.

License to operate a hazardous waste final disposal site

8. (1) No person shall operate a hazardous waste final disposal site without a licence from the Competent Authority.

(2) An application to operate a hazardous waste final disposal site shall be made on Form HWM 4 in the First Schedule and shall be accompanied by the fee set out in the Third Schedule.

(3) The license under this Regulation shall be set out in Form LHWM 4 in the Second Schedule.

(4) A licence or permit to operate a hazardous waste final disposal site shall be issued on condition that:

(a) the site shall be operated in an environmentally sound manner and employ operations listed in Seventh Schedule;

(b) the site shall be managed by a technically competent person approved by the Competent Authority;

(c) there shall be adequate financial security to cover any third party liabilities and compensate victims of any accident from the operation of the site;

(d) the site shall be compatible with land-use and or developmental plans of the relevant authorities; and

(e) the records of all types and quantities of hazardous waste shall be maintained.

(5) The licence or permit to operate a hazardous waste final disposal site shall specify:

(a) a list of defined types, quantities of hazardous wastes and requirements for disposal operations at the site;

(b) the monitoring and control procedures, including contingency plans; and

	(c) the reports to be submitted bi-annually, or at intervals to be specified by the Competent Authority.
Notification	(6) Where an application to own or operate a hazardous waste final disposal site is not granted, the Competent Authority shall state the reasons for such refusal.
Transboundary movement of hazardous waste	9. No transboundary movement of hazardous waste shall take place unless the exporter, importer and the transporter have complied with the requirements of the Act and these Regulations.
Importation of hazardous waste	10. No person shall import hazardous waste into Zambia.
Exportation of hazardous waste	11. (1) No person shall export hazardous waste without a permit from the Competent Authority. (2) the permit to export hazardous waste shall be subject to the following conditions- (a) the consent has been obtained from the receiving country; (b) the hazardous waste cannot be reasonably be recycled, reused or disposed of locally in a safe and environmentally sound manner; (c) the receiving country has the necessary facilities, capacity or suitable disposal site to dispose of the hazardous waste in an environmentally sound manner, and has indicated this to the Competent Authority. (d) the hazardous waste in question is required as raw materials for recycling or recovery in specified industries in the receiving country; (e) the export is in accordance with an agreement or arrangement between the exporter and importer and conforms to the provisions of the Act and these regulations; (f) an authorisation is obtained, from transit countries, where transit countries are involved; (g) the exporter of hazardous waste has taken comprehensive insurance to cover for any incidents from Zambia up to the country of import, and re-import; and (h) the labelling, packaging and transportation identified in the notification conform to the requirements as outlined in Seventh Schedule ; (2) An application for a permit to export hazardous waste shall be made on Form HWM 6 in the First Schedule and shall be accompanied by the fee set out in the Second Schedule;
Transit of hazardous waste	12. (1) No transit of hazardous waste shall take place without a permit from the Competent Authority. (2) A permit under this regulation shall be issued subject to the

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following conditions:

- (a) prior to the transit, notification of both the country of export and import in a language that is understood by the parties involved has been received giving details of –
 - (i) the exporter, the carrier and the licensed operator of a hazardous waste disposal site;
 - (ii) the specification, quantities and mode of transport of the hazardous waste;
 - (iii) the countries of export, import and final destination of the hazardous waste;
 - (iv) a timetable specifying the expected dates of transit through the area under the jurisdiction of the Competent Authority;
 - (v) proof that the exporter, carrier, importer, operator and the site or facility for disposal are licensed to carry out the operations in question in relation to the waste;
 - (vi) information detailing emergency procedures in case of accidents; and
 - (vii) insurance to cover any incidents.
 - (b) an authorised route is to be followed;
 - (c) a specified transit period is indicated; and
 - (d) insurance to cover incidents is effected.
- (3). The importer and exporter shall notify the Competent Authority of any proposed transboundary movements of hazardous waste passing through the area of its jurisdiction.
- (4) The Competent Authority shall promptly acknowledge receipt of any notification under sub-regulation (2) and (3).
- (5) The labelling and packaging of the hazardous waste shall conform to the international standards as specified in Eighth Schedule.
- (6) In addition to the requirements specified under this regulation, the Inspectorate may seek additional information where necessary.
- (7) The Competent Authority shall, within ninety days of receipt of the notification, make a decision under sub-regulation (1) which may include specific conditions relating to the transportation of hazardous waste and inform the exporter or relevant authority of the country of export as appropriate.
- (8) Where a transboundary movement is by land, the Inspectorate at the port of entry shall ensure that the container is properly sealed and shall ensure, at the port of exit, that the seal has not been broken.
- (9) Where the application for transit of hazardous waste is not granted, the Competent Authority shall state the reasons for such refusal.

Illegal traffic
or

13. (1) National and transboundary movement of hazardous waste shall be illegal traffic if carried out-

transportation
of hazardous
waste

- (a) without notification as required by these regulations;
- (b) without a permit or licence from the Competent Authority;
- (c) with a permit or licence which has been given through falsification, misrepresentation or fraud; and
- (d) in a manner that is in contravention of the conditions specified under these regulations;

(2) The Competent Authority shall have the power to conduct both regular and random inspections of sites, facilities and cargo, and to impound or seize the shipments of hazardous waste and the means of conveyance that is an object of illegal traffic.

Re-export of
illegal traffic
shipments

14 (1) The transporters or importers involved in the illegal traffic shall be required to transport the hazardous waste back to the country of export at their own expense.

(2) In the case where such re-export is not practical, the Competent Authority shall direct the method of disposal for such hazardous waste involved in illegal traffic, and the exporter, importer and transporter shall meet the cost of the disposal.

(3) Where such hazardous waste cannot be attributed to any particular person, and re-export is not practical, the Competent Authority shall assume the responsibility of disposal in accordance with these regulations.

Monitoring by
the Competent
Authority

15. (1) The Competent Authority shall ensure that all activities related to the generation, storage, transportation, pre-treatment, treatment, export and disposal of hazardous waste are:

- (a) not authorised until a thorough audit including a detailed risk assessment is undertaken; and
- (b) monitored and inspected on a regular basis for compliance with these regulations.

(2) Any costs incidental to the requirements under sub-regulation (1) shall be borne by the person licenced to generate, store, transport, pre-treat, treat, export and dispose of hazardous waste.

Enforcement

19. (1) The Competent Authority shall have the powers to conduct both regular and random inspections of sites, facilities, premises, storage areas, cargo and any means of conveyance to ensure compliance with these regulations.

(2) The Competent Authority shall have powers to order any person who contravenes any provision of these Regulations to take appropriate abatement measures.

(3) Where the person fails to take appropriate abatement measures, the competent Authority may take remedial measures and the costs of such remedial measures shall be recovered from that

person as a civil debt.

- (4) Any person who contravenes any of the provisions of these regulations or a condition of a licence after an enforcement notice has been issued under regulation 17 commits an offence and shall be liable upon conviction to a fine or conviction as set out in section *ninety-one* of the Act.

Enforcement notice 17. (1) Where the Competent Authority has reasonable cause to believe that a person is contravening any of the provisions of these Regulations or a condition of the licence or is likely to contravene any of the provisions of these Regulations or a condition of the licence or permit, the Inspectorate shall serve an enforcement notice on that person.

(2) An enforcement notice shall:

- (a) state the belief regarding the contravention or the likely contravention of the provisions of these Regulations or a condition of the licence or permit and specify the matters constituting the contravention or making it likely that the contravention will arise, as the case may be;
- (b) specify the steps that have to be taken to remedy the contravention or avoid the contravention, as the case may be; and
- (c) specify the time limit within which the steps described under paragraph (b) have to be taken.

(3) Any person who contravenes any of the provisions of these Regulations or a condition of a licence after an enforcement notice has been issued under regulation (1):-

- (a) shall have the licence revoked; and
- (b) commits an offence and shall be liable upon conviction to a fine or conviction as set out in section *ninety-one* of the Act.

FIRST SCHEDULE

PRESCRIBED FORMS

(Regulation 4,5,6,7,8,11 and 12)

[Form HWM 1](#)

REPUBLIC OF ZAMBIA

Environmental Council

Environmental Protection and Pollution Control Act

(Law, Volume 12, Cap. 204)

The Hazardous Waste Management Regulations

Application for a licence to Generate/Store Hazardous Waste

(Regulation 4 and 5)

To: The Chief Inspector (Pollution Control)
Environmental Council of Zambia
PO Box 35131
LUSAKA

1. Name of applicant:.....

2. Address of applicant

Physical.....

Postal:.....

Telephone no.....

Fax no:.....

Telex.....

E-mail.....

3 Profile of applicant

Line of business:

.....

Qualification of the technical personnel (to be attached):

.....

.....

Information on the assessment of the suitability of the facility (attach EIA where applicable)

.....

4 Nature of process generating hazardous waste

.....

.....

5 Types and quantities of hazardous waste generated:

.....

.....

6 Characteristics of the hazardous wastes: (refer to Schedule 4)

.....

.....

7 Details on handling and storage:

Reasons for storage:.....

Quantities stored:.....

Type of storage:.....

Type of packaging materials:.....

Place of storage:
Maximum period of storage:
Arrangements for security and emergency plans:

8 Plans for reducing generation of hazardous waste over a period of time:
.....
.....

9 Re-use and recycling options:
.....
.....

10 Method(s) of disposal:
.....
.....

11 Location of disposal site:
.....
.....

12 Other relevant information to support the application: (write on separate paper if space provided is not adequate):
.....
.....

13 Name: Designation
Signature Date

For Official Use only

Recommendation by the Environmental Impact Assessment Officer:
.....
.....
.....

Comments.....
.....
.....

Date: Signature:
Chief Inspector (Pollution Control)
Environmental Council

12. Type of labelling on containers and vehicles:

.....
.....
.....

13. Type of insurance cover (attach proof):

.....

14. Details related to security in transit:

.....
.....

15. Other relevant information to support the application:

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.....
.....

16. Name : Designation:
Signature: Date.....

For Official Use only

Comments.....
.....
.....

Date:

Signature:.....
Chief Inspector (Pollution Control)
Environmental Council

PRESCRIBED FORMS

**REPUBLIC OF ZAMBIA
Environmental Council**

**Environmental Protection and Pollution Control Act
(Laws, Volume 12, Cap. 204)**

The Hazardous Waste Management Regulations

(Application for licence to Pre-treat or Treat Hazardous Waste
(*Regulation 7*))

To: The Chief Inspector (Pollution Control)
Environmental Council of Zambia
PO Box 35131
Lusaka

1. Name of applicant:.....
2. Address of applicant:.....
Physical.....
Postal:
Telephone no.....
Fax no:.....
Telex
E-mail
3. Attach letter of approval by the Local Authority:
.....
.....
4. Description of the sites(s) or facility(ies), including capacity, estimated life span
(attach details of site plan, design and layout of different facilities):
.....
.....
5. Location of the site(s) or facility(ies):
.....
.....
6. Source(s)of hazardous waste:
.....
.....
7. Pre-treatment or treatment method(s) to be used:
.....
.....
.....

6. Estimated types and quantities of hazardous wastes to be pre-treated or treated:

No	Type of hazardous waste	Quantities (weight/Volume)	Type of packaging material

9. Products and or by-products of the pre-treatment or treatment:

.....

10. Method (s) of monitoring for contamination of the environment:

.....

11. Site of final disposal:

.....

12. Type of insurance cover (attach proof):

.....

13. Arrangements for security and emergency plans

.....

14. Other relevant information to support the application:

.....

15. Name Designation:
 Signature: Date.....

For Official Use only

Comments.....

Date:

Signature:.....
 Chief Inspector (Pollution Control)
Environmental Council

PRESCRIBED FORMS

REPUBLIC OF ZAMBIA
Environmental Council

Environmental Protection and Pollution Control Act
(Laws, Volume 12, Cap. 204)
The Hazardous Waste Management Regulations

Application for a licence to Operate Hazardous Waste Final Disposal Sites
(Regulation 8)

To: The Chief Inspector (Pollution Control)
Environmental Council of Zambia
PO Box 35131
Lusaka

- 1. Name of applicant:.....
- 2. Address of applicant:.....
 - Physical.....
 - Postal:
 - Telephone no.....
 - Fax no:.....
 - Telex.....
 - E-mail.....

3. Attach letter of approval by the Local Authority
.....
.....

4. Description of the sites(s) or facility(ies), including capacity, estimated life span (attach details of site plan, design and layout of different facilities)
.....
.....

5. Location of the site(s) or facility(ies):
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.....

6. Method(s) of disposal:
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.....

7. Details on types and quantities of hazardous wastes to be disposed of:

No	Type of hazardous waste	Quantities (Weight/volume)	Type of packaging material

8. Method of environmental monitoring to be done:
.....
.....
.....

7. Type of insurance cover (attach proof):
.....
.....

8. Arrangements for security and emergency plans:
.....
.....

9. Attach post closure management plan:

12. Other relevant information to support the application:
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.....
.....

13. Name: Designation:
Signature : Date:

For Official Use only
Comments.....
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Date: Signature:
Chief Inspector (Pollution Control)
Environmental Council

PRESCRIBED FORMS

REPUBLIC OF ZAMBIA

Environmental Council

**Environmental Protection and Pollution Control Act
(Laws, Volume 12, Cap. 204)
The Hazardous Waste Management Regulations**

Hazardous Waste Management Regulations

**Notification form
(Regulation 6)**

4 copies

- 1 Original to the Competent Authority
- 1 Copy to the generator of hazardous waste
- 1 Copy to the transporter/collector of hazardous waste
- 1 copy to the facility licensed to receive the hazardous waste

1. Particulars of the generator of hazardous waste

Licence number:.....
 Company name:
 Address (Postal and Plot number):
 Tel:..... Fax:..... E-mail.....
 Type (s) of hazardous waste:.....
 Quantities of hazardous waste:.....
 Name and title of responsible person:.....
 Signature:.....
 Date:.....

2. Particulars of transporter of hazardous waste

License number:
 Name of transporter:
 Address:.....
 Tel:..... Fax:..... E-mail:.....
 Proposed date, time and route of movement:

 Details on the mode of transport.....

 Attach copy of offer:

3. Particulars of the treatment/disposal facility

License No:
 Company name:.....
 Address:.....
 Tel:..... Fax:..... E-mail:.....
 Method of treatment:(recycling, landfilling, incineration, etc):

 Attach confirmation of agreement to receive the hazardous waste

For official Use

Date form received

Form checked by

.....
.....
.....

Date

Signature.....

Chief Inspector (Pollution Control)

Environmental Council

PRESCRIBED FORMS

**REPUBLIC OF ZAMBIA
Environmental Council**

**Environmental Protection and Pollution Control Act
(Laws, Volume 12 Cap. 204)
The Hazardous Waste Management Regulations**

Application a for licence to Export Hazardous Waste
(Regulations 11,)

To: The Chief Inspector (Pollution Control)
Environmental Council of Zambia
P O Box 35131
Lusaka

1. Name of applicant:.....
2. Address of applicant:.....
Physical:.....
Postal:.....
Telephone no:.....
Fax no:.....
Telex:.....
E-mail:.....
3. Reason for export of hazardous waste:
.....
4. Name of exporter:.....
5. Generator(s) of the hazardous waste and site of generation:.....
6. Name of operator of disposal site/facility and actual site of disposal:
.....
7. Intended carrier(s) of the waste or their agents, if known:
.....
8. Country of export of the waste:.....
9. Approval by relevant Authority of the country of export:
.....
10. Expected countries of transit:
.....
11. Approval by relevant Authorities of the country (ies) of transit:
.....
12. Country of import of the hazardous waste:

-
 13. Approval by the relevant authorities of the country of import;

-
 14. General or single notification, date(s) of shipment(s) and period of time over which waste is to be exported and proposed itinerary (including point of entry and exit)

-
 15. Mode of transport:
-
 16. Type copy of insurance cover:
-
 17. Designation and physical description of the waste including Y number and UN number and its composition and information on any special handling requirements including emergency provisions in case of accidents (refer to Schedule 4;

-
 18. Type of packaging

-
 19. Type and estimated quantity in weight/volume of hazardous waste:

-
 20. Process by which the hazardous waste is generated:

-
 21. State the hazard characteristics, H number, and UN class:

-
 22. Method of disposal as per schedule 6:

-
 23. Evidence of capacity by operator of disposal facility to dispose of hazardous waste in an environmentally sound manner (attach):

-
 24. Attach copy of the contract between the exporter and operator of a disposal site:

-
 25. Declaration by the generator and exporter that the information submitted in this application is correct:

-
 26. Name: Designation:
Signature: Date:

For Official Use only

Comments.....
.....
.....

Date:

Signature:

Chief Inspector (Pollution Control)
Environmental Council

**SECOND SCHEDULE
PRESCRIBED FORMS**

REPUBLIC OF ZAMBIA

Environmental Council

**Environmental Protection and Pollution Control Act
(Laws, Volume 12, Cap. 204)**

The Hazardous Waste Management Regulations

License to Generate/Store Hazardous Waste
(Regulations 4)

License No:.....

Name:

Address:.....

.....

.....

.....

You are licenced to generate and/ or store the following classes of hazardous waste and the

respective quantities:

.....

.....

.....

.....

at the plant / facility located at:

.....

The license is valid from:

to.....

The license is subject to the following conditions:

.....

.....

Date

Signature
Chief Inspector (Pollution Control)
Environmental Council

PRESCRIBED FORMS

**REPUBLIC OF ZAMBIA
Environmental Council**

**Environmental Protection and Pollution Control Act
(Laws, Volume 12, Cap. 204)**

The Hazardous Waste Management Regulations, 2001

Licence to Transport Hazardous Waste
(Regulation 6)

Licence No:
Name:
Address:
.....

You are licenced to transport the following classes of hazardous waste and the
respective quantities.....

Mode of transport.....

Number and type.....

From the plant/ facility located at.....

to.....

The licence is valid from.....

to.....

The licence is granted subject to the following conditions.....

Date

Signature
Chief Inspector(Pollution Control)
Environmental Council

PRESCRIBED FORMS

REPUBLIC OF ZAMBIA

Environmental Council

Environmental Protection and Pollution Control Act
(Laws, Volume 12, Cap. 204)

The Hazardous Waste Management Regulations, 2001

License To Pre-treat or Treat Hazardous Waste
(Regulations 7)

License No:.....

Name

Address.....

.....

.....

You are licensed to pre-treat or treat the following classes and quantities of waste of hazardous waste respectively:

.....

.....

.....

at plant / facility located at

.....

.....

.....

.....

The license is valid from

to

The license is granted subject to the following conditions

.....

.....

.....

Date

Signature
Chief Inspector (Pollution Control)
Environmental Council

PRESCRIBED FORMS

REPUBLIC OF ZAMBIA

Environmental Council

Environmental Protection and Pollution Control Act
(Laws, Volume 12 Cap. 204)

The Hazardous Waste Management Regulations, 2001

License To Own/Operate Hazardous Waste Disposal Site
(Regulations 8)

License no.....
Name
Address
.....
.....

You are licensed to own/operate a hazardous waste disposal site located
at:.....
.....
.....
.....

for the following classes and quantities of hazardous waste respectively
.....
.....

The license is valid from
to

The license is granted subject to the following conditions
.....
.....

Date

Signature
Chief Inspector (Pollution Control)
Environmental Council

THIRD SCHEDULE
PRESCRIBED FEES
(Regulations 6,7,8,9 and 13)

1 Generator of hazardous waste:

Class	Amount <i>(in fee units)</i>	
Class 1	25,000	(over 1,000t)
Class 2	17,000	(500-1,000t)
Class 3	12,000	(100-500t)
Class	7,000	(less than 100t)

- | | |
|---------------------------------|---------------|
| 2. Storage of hazardous waste | 8,500-14,000 |
| 3. Transport of hazardous waste | 3,000-6,000 |
| 4. Pre- treatment | 3,000 |
| 5. Treatment | 8,500-19,000 |
| 6. Final Disposal site | 14,000-19,500 |
| 7. Export of hazardous waste | 14,000-19,500 |
| 8. Transit of hazardous waste | 28,000 |

FOURTH SCHEDULE
LIST OF HAZARDOUS WASTE.

(Regulation 3)

REPUBLIC OF ZAMBIA

Environmental Council

A1 Metal or metal bearing wastes

- ECZ A1010 Metal wastes and wastes containing alloys of arsenic, cadmium, lead, mercury, selenium.
- ECZ A1020 Wastes having as constituents or contaminated (excluding metal wastes in massive form) with cadmium, lead, selenium or their compounds.
- ECZ A1040 Wastes having as constituents hexavalent chromium.
- ECZ A1060 Waste liquors from pickling of metals
- ECZ A1070 Leaching residues, dust and sludges from zinc processing.
- ECZ A1090 Ashes from the incineration of insulated copper wire.
- ECZ A1160 Waste lead-acid batteries.
- ECZ A1180 Waste electrical or electronic assemblies or scrap containing accumulator or other batteries, mercury switches, activated glass, polychlorinated biphenyls (PCBs), or contaminated with materials having hazard characteristics listed in Schedule 4.

A2 Wastes containing in-organic constituents

- ECZ A2020 Waste (spent) catalysts
- ECZ A2050 Waste Asbestos

A3 Organic

- ECZ A3020 Waste mineral oils, including that contaminated by polychlorinated biphenyls (PCBs)
- ECZ A3140 Waste non-halogenated organic solvents.
- ECZ A3150 Waste halogenated organic solvents.
- ECZ A3180 Waste containing polychlorinated biphenyls (PCBs), polychlorinated terphenyls (PCTs), polychlorinated naphthalanes (PCNs), polybrominated biphenyls(PBBs).
- ECZ A4010 Waste from pharmaceuticals
- ECZ A4020 Waste from clinics and other related wastes (medical, veterinary, investigations and research), excludes office and kitchen wastes.
- ECZ A4040 Wood preservation chemicals
- ECZ A4050 Inorganic or organic cyanides
- ECZ A4070 Wastes from inks, dyes, pigments, paints.
- ECZ A4080 Explosive wastes
- ECZ A4150 Chemicals from research and development, and teaching.

FIFTH SCHEDULE
LIST OF HAZARDOUS CHARACTERISTICS

(Regulation 3)

Environmental Protection and Pollution Control Act No 12 of 1990
The Hazardous Waste Management Regulations (Statutory Instrument No. ..of
2000)

<i>UN Class</i>	<i>Code</i>	<i>Characteristics</i>
I	HI	Explosive An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such speed as to cause damage to the surroundings.
3	H3	Flammable liquids The word "flammable" has the same meaning as inflammable." Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc., but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off a flammable vapour at temperatures of not more than 60.5 ⁰ C, closed-cup test, or not more than 65.6 ⁰ C, open-cup test. (Since the results of open-cup tests and of closed-cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowance for such differences would be within the spirit of this definition.)
4.1	H4.1	Flammable solids Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.
4.2	H4.2	Substances or wastes liable to spontaneous combustion Substances or wastes, which are liable to spontaneous heating under normal conditions, encountered in transport, or to heating upon contact with air, and being then liable to catch fire.
4.3	H4.3	Substances or wastes, which, in contact with water emit flammable gases Substances or wastes, which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.
5.1	H5.1	Oxidizing Substances or wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen

cause, or contribute to, the combustion of other materials.

5.2	H5.2	Organic Peroxides Organic substances or wastes, which contain the bivalent-O-O- structure, are thermally unstable substances, which may undergo exothermic self-accelerating decomposition.
6.1	H6.1	Poisonous (Acute) Substances or wastes liable either to cause death or serious injury or to harm health if swallowed or inhaled or by skin contact
6.2	H6.2	Infectious substances Substances or wastes containing viable micro-organisms or their toxins which are or known or suspected to cause disease in animals or humans.
8	H8	Corrosives Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or, in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.
9	HI 0	Liberation of toxic gases in contact with air or water Substances or wastes, which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.
9	HI I	Toxic (Delayed or chronic) Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.
9	H12	Exotoxic Substances or wastes which if released present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon biotic systems.
9	H13	Capable, by any means, after disposal, of yielding other material, e.g., leachate, which possesses any of the characteristics listed above.

SIXTH SCHEDULE
CATEGORIES OF WASTES TO BE CONTROLLED
(Regulation 3)

Waste Streams

- Y1 Clinical wastes from medical care in hospitals, medical centers and clinics
- Y2 Wastes from the production and preparation of pharmaceutical products
- Y3 Waste pharmaceuticals, drugs and medicines
- Y4 Wastes from the production, formulation and use of biocides and phyto-pharmaceuticals
- Y5 Wastes from the manufacture, formulation and use of wood preserving chemicals
- Y6 Wastes from the production, formulation and use of organic solvents
- Y7 Wastes from heat treatment and tempering operations containing cyanides
- Y8 Waste mineral oils unfit for their originally intended use
- Y9 Waste oils/water, hydrocarbons/water mixtures, emulsions
- Y10 Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)
- Y11 Waste tarry residues arising from refining, distillation and any pyrolytic treatment
- Y12 Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish
- Y13 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives
- Y14 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known
- Y15 Wastes of an explosive nature not subject to other legislation
- Y16 Wastes from production, formulation and use of photographic chemicals and processing materials
- Y17 Wastes resulting from surface treatment of metals and plastics
- Y18 Residues arising from industrial waste disposal operations

Wastes having as constituents:

- Y19 Metal carbonyls
- Y20 Beryllium; beryllium compounds
- Y21 Hexavalent chromium compounds
- Y22 Copper compounds
- Y23 Zinc compounds
- Y24 Arsenic; arsenic compounds
- Y25 Selenium; selenium compounds
- Y26 Cadmium; cadmium compounds
- Y27 Antimony; antimony compounds
- Y28 Tellurium; tellurium compounds
- Y29 Mercury; mercury compounds
- Y30 Thallium; thallium compounds
- Y31 Lead; lead compounds
- Y32 Inorganic fluorine compounds excluding calcium fluoride
- Y33 Inorganic cyanides

- Y34 Acidic solutions or acids in solid form
- Y35 Basic solutions or bases in solid form
- Y36 Asbestos (dust and fibres)
- Y37 Organic phosphorus compounds
- Y38 Organic cyanides
- Y39 Phenols; phenol compounds including chlorophenols
- Y40 Ethers
- Y41 Halogenated organic solvents
- Y42 Organic solvents excluding halogenated solvents
- Y43 Any congener of polychlorinated dibenzo-furan
- Y44 Any congener of polychlorinated dibenzo-p-dioxin
- Y45 Organohalogen compounds other than substances referred to in this schedule
(e.g. Y39, Y41, Y42, Y43, Y44)

SEVENTH SCHEDULE
DISPOSAL OPERATIONS
(Regulation 8)

The Hazardous Waste Management Regulations 2001

A. OPERATIONS WHICH DO NOT LEAD TO THE POSSIBILITY OF RESOURCE RECOVERY, RECYCLING, RECLAMATION, DIRECT RE-USE OR ALTERNATIVE USES

SECTION A ENCOMPASSES ALL SUCH DISPOSAL OPERATIONS WHICH OCCUR IN PRACTICE.

- D1 Deposit into or onto land, (e.g., landfill, etc.)
- D2 Land treatment, (e.g., biodegradation of liquid or sludgy discards in soils, etc.)
- D3 Deep injection, (e.g., injection of pumpable discards into wells, salt domes of naturally occurring repositories, etc.)
- D4 Surface impoundment, (e.g., placement of liquid or sludge discards into pits, ponds or lagoons, etc.)
- D5 Specially engineered landfill, (e.g., placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)
- D6 Release into a water body.
- D7 Release into seas/oceans including sea-bed insertion
- D8 Biological treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Section A
- D9 Physico chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Section A, (e.g., evaporation, drying, calcination, neutralization, precipitation, etc.)
- D10 Incineration on land
- D11 Incineration at sea
- D12 Permanent storage (e.g., emplacement of containers in a mine, etc.)
- D13 Blending or mixing prior to submission to any of the operations in Section A
- D14 Repackaging prior to submission to any of the operations in Section A
- D15 Storage pending any of the operations in Section A

B. OPERATIONS WHICH MAY LEAD TO RESOURCE RECOVERY, RECYCLING RECLAMATION, DIRECT RE-USE OR ALTERNATIVE USES

SECTION B ENCOMPASSES ALL SUCH OPERATIONS WITH RESPECT TO MATERIALS LEGALLY DEFINED AS OR CONSIDERED TO BE HAZARDOUS WASTE AND WHICH OTHERWISE WOULD HAVE BEEN DESTINED FOR OPERATIONS INCLUDED IN SECTION A

- R1 Use as a fuel (other than in direct incineration) or other means to generate energy
- R2 Solvent reclamation/regeneration
- R3 Recycling/ reclamation of organic substances which are not used as solvents
- R4 Recycling/reclamation of metals and metal compounds
- R5 Recycling/reclamation of other inorganic materials
- R6 Regeneration of acids or bases
- R7 Recovery of components used for pollution abatement
- R8 Recovery of components from catalysts
- R9 Used oil re-refining or other reuses of previously used oil
- R10 Land treatment resulting in benefit to agriculture or ecological improvement
- R11 Uses of residual materials obtained from any of the operations numbered R1-R10

- R12 Exchange of wastes for submission to any of the operations numbered R1-R11
- R13 Accumulation of material intended for any operation in Section B

EIGHTH SCHEDULE
RECOMMENDED MEANS FOR TRANSPORTATION OF HAZARDOUS WASTE

(Regulations 15)

Class 1	Explosives
Class 3	Flammable liquids
Class 4.1	Flammable solids
Class 4.2	Substances or wastes liable to spontaneous combustion
Class 4.3	Substances or wastes which in contact with water emit flammable gases
Class 5.1	Oxidising
Class 6.1	Poisonous (acute)
Class 6.2	Infectious substances
Class 8	Corrosives
Class 9	Liberation of toxic gases in contact with air or water
Class 9	Toxic (delayed or chronic)
Class 9	Exotoxic

A General Recommendations on storage and transport

- 1 Packaging should be of good quality which should be constructed and closed so as to prevent leakages which might be caused under normal conditions of storage or transport.
- 2 Parts of packagings which are in direct contact with substances should not be affected by chemical or other reaction of those substances. Where necessary, they should be provided with a suitable inner coating or treatment. Such parts of packagings should not incorporate constituents liable to react dangerously with contents so as to form other products or weaken them significantly.
- 3 When filling packagings with liquids, sufficient ullage (outage) should be left to ensure that neither leakage or permanent distortion of the packaging occurs as a result of expansion of the liquid caused by temperatures likely to occur during storage or transport.
- 4 Inner packagings should be packed in an outer packaging in such a way that, under normal conditions of storage or transport cannot break, be punctured or leak their contents into outer packaging. Inner packagings that are liable to break or be punctured easily, such as those made of glass, porcelain or stoneware or of certain plastics materials, etc. should be secured in outer packagings with suitable cushioning material. Any leakage of the contents should not substantially impair the protective properties of the cushioning material or the outer packaging.
- 5 Inner packagings containing different substances which may react dangerously with one another should not be placed in the same packaging.
- 6 Where pressure may develop in a package by the emission of gas from the contents (as a result of temperature increase), the packaging may be fitted with vent provided that the gas emitted will not cause danger on account of its toxicity, its flammability, the quantity released , etc. The vent should be so designed that when the packaging is in the altitude in which it is intended to be stored or transported, leakage of leakages of the liquid and the penetration of the foreign substances are prevented under normal conditions of storage or transport. Venting of the package is not permitted for air transport.
- 7 Any packaging which shows signs of reduced strength as compared with the approved design type should no longer be used or should be so reconditioned.
- 8 Liquids should be filled only into packagings which have an appropriate resistance to internal pressure that may be developed under normal conditions of storage and transport. Packagings marked with the hydraulic test pressure should be filled only with a liquid having a vapour pressure:
 - (a) such that the total gauge pressure in the packaging (i.e. the vapour

pressure of the filling substance plus the partial pressure of the air or other inert gases, less 100 kPa) at 55°C, determined on the basis of maximum degree of the filling and filling temperature of 15°C, will not exceed two-thirds of the marked test pressure; or

- (b) at 50°C less than four-sevenths of the sum of the marked test pressure plus 100kPa; or
- (c) at 55°C less than two-third of the sum of the marked test pressure plus 100kPa.

- 9 An empty packaging that has contained a dangerous substances should be treated in the same manner as is required by the recommendations for a filled packaging until it has been purged of the residue of the dangerous substance.
- 10 Each package should be clearly marked on the outside with the name of its contents and UN number, together with the net mass of the material and the gross mass

B Specific recommendations: Class 1 Explosives

- 1 Water soluble substances should be packed in waterproof receptacles
- 2 Packages should be lead free
- 3 The inside of packings should be galvanized, painted or otherwise protected
- 4 Then inner packings, which unless the ends of the articles are sealed, should be plastics
- 5 Large articles without any means of ignition may be carried unpacked

LUSAKA

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