



SCHEDULED WASTES MANAGEMENT UNDER EQA 1974

Date: 2nd Mac 2018

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OUTLINES



JABATAN ALAM SEKITAR
DEPARTMENT OF ENVIRONMENT

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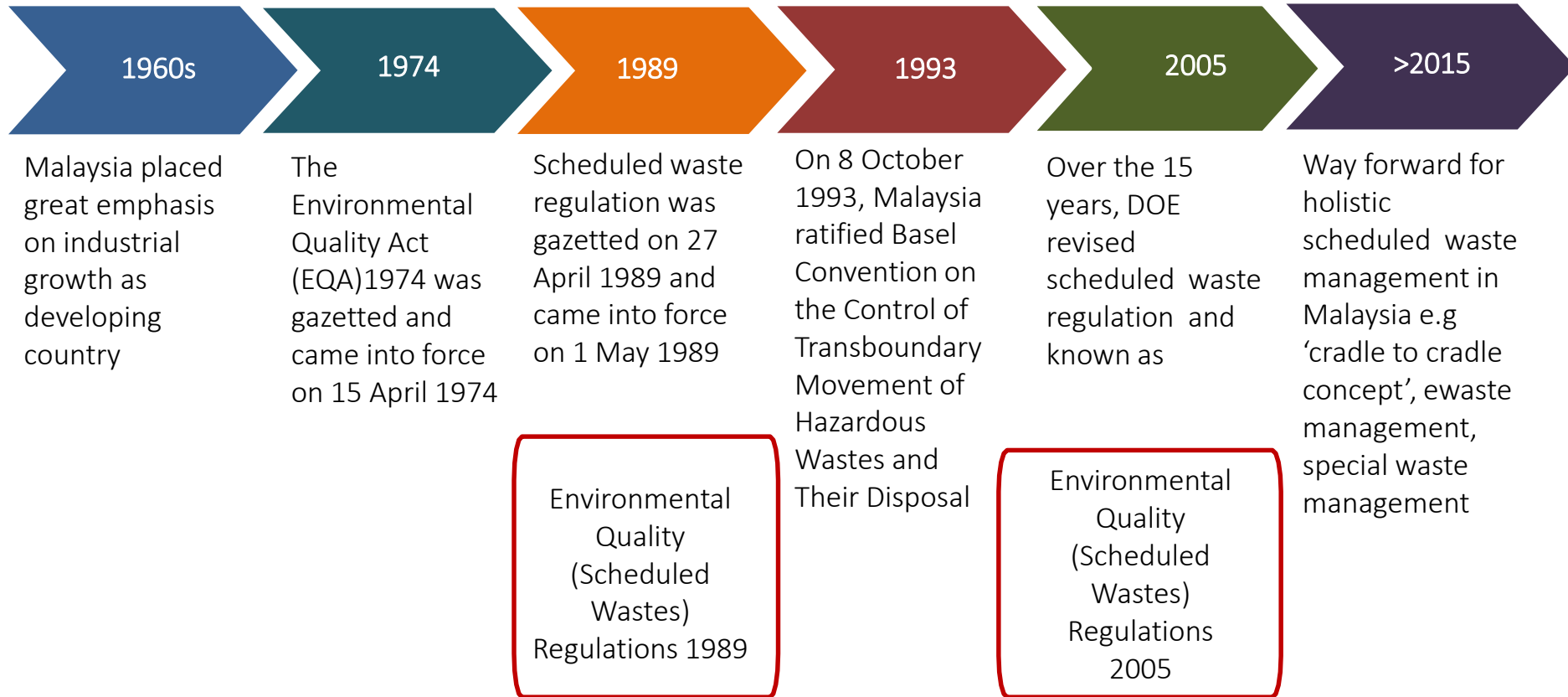


INTRODUCTION

- Malaysia has embarked on the programme to control Scheduled Wastes especially from industries since 1989, with the introduction and enforcement of a set of regulations on Scheduled Waste.
- Currently, management of scheduled waste in Malaysia has been implemented based on the 'cradle to cradle' as well as "cradle to grave" principle.
- The approach of promoting the use of waste whenever possible as alternative raw materials or alternative fuels to substitute the raw materials, without compromising the quality of product and the risk exposure to human health and environment.

INTRODUCTION...CONT..

Scheduled Waste Milestone



INTRODUCTION...CONT..

Mismanagement Of Scheduled Waste

- Environmental contamination by toxic substances from waste or other source has a long history;
- If they are stored on-site without necessary precautions or dumped illegally they may also present long term risks to the environment.
- Goal of scheduled wastes management is to reduce the risk of exposure to hazards that will affect:
 - i. Human health
 - ii. Ecological systems or environment

What will happen if scheduled wastes are not properly managed????



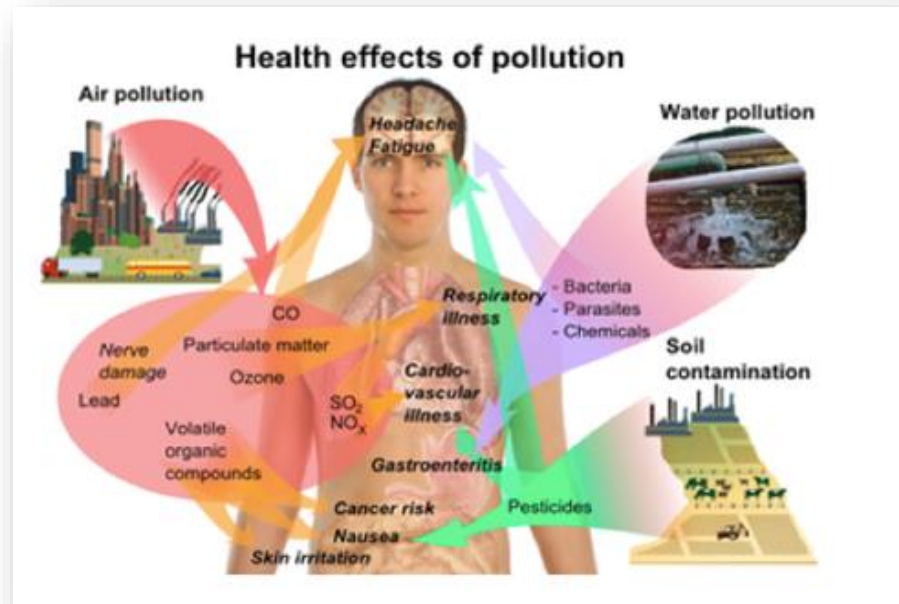
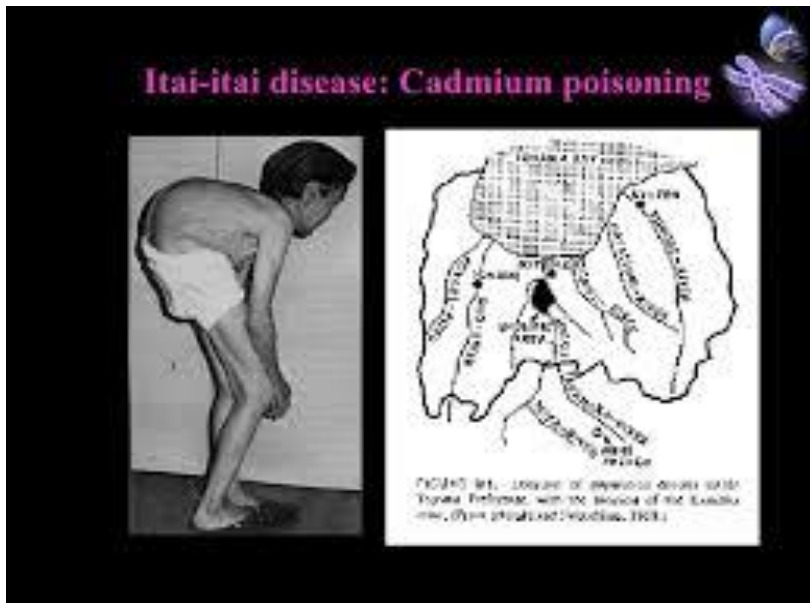
1. Pollution to the environment

- i. River, sea, groundwater polluted.
- ii. Fish/ aquatic life/ marine life affected.
- iii. Drinking water source polluted.
- iv. Aesthetic value affected.



2. Human health effect

- i. Water-borne and air-borne diseases, contaminated soil.
- ii. Miscarriage.
- iii. Cancer.
- iv. Internal organs damage.



3. Increase in clean up and disposal cost



LEGISLATION IN SCHEDULED WASTE MANAGEMENT



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Provisions Under EQA 1974

- 1 • Section 16: Licensee to Comply with Licence
- 2 • Section 18. Prescribed Premises to be Licenced
- 3 • Section 19: Written Permission to Construct Facility
- 5 • Section 34A: Report on Impact on Environment Resulting from Prescribed Activities
- 6 • Section 34B: Prohibition Against Placing, Deposit, etc., of Scheduled Wastes
- 7 • Section 49A 1(b): Competent Person



LEGISLATION IN SCHEDULED WASTE MANAGEMENT...CONT...

List Of Regulations

- 1 • Environmental Quality (Scheduled Wastes) Regulations, 2005.
- 2 • Environmental Quality (Prescribed Premises)(Scheduled Wastes Treatment And Disposal Facilities) Order, 1989 (Amendment) 2006.
- 3 • Environmental Quality (Prescribed Premises)(Scheduled Wastes Treatment And Disposal Facilities) Regulations, 1989 (Amendment) 2006
- 4 • Environmental Quality (Prescribed Conveyance) (Scheduled Wastes) Order 2005.
- 5 • Environmental Quality (Prescribed Activity)(Environmental Impact Assessment) Oder 2015.

ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005



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- Came into force on 15 August 2005
- Replacing previous Environmental Quality (Scheduled Wastes) 1989 Regulations
- The objectives of this regulations are:-
 - i. To ensure proper management of scheduled wastes
 - ii. To prevent pollution of scheduled wastes into the environment
 - iii. To monitor the movement of scheduled wastes and to ensure that scheduled wastes are handled at licensed facility
- This regulations contain 16 Regulations



ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Scheduled Waste Definition

WASTE

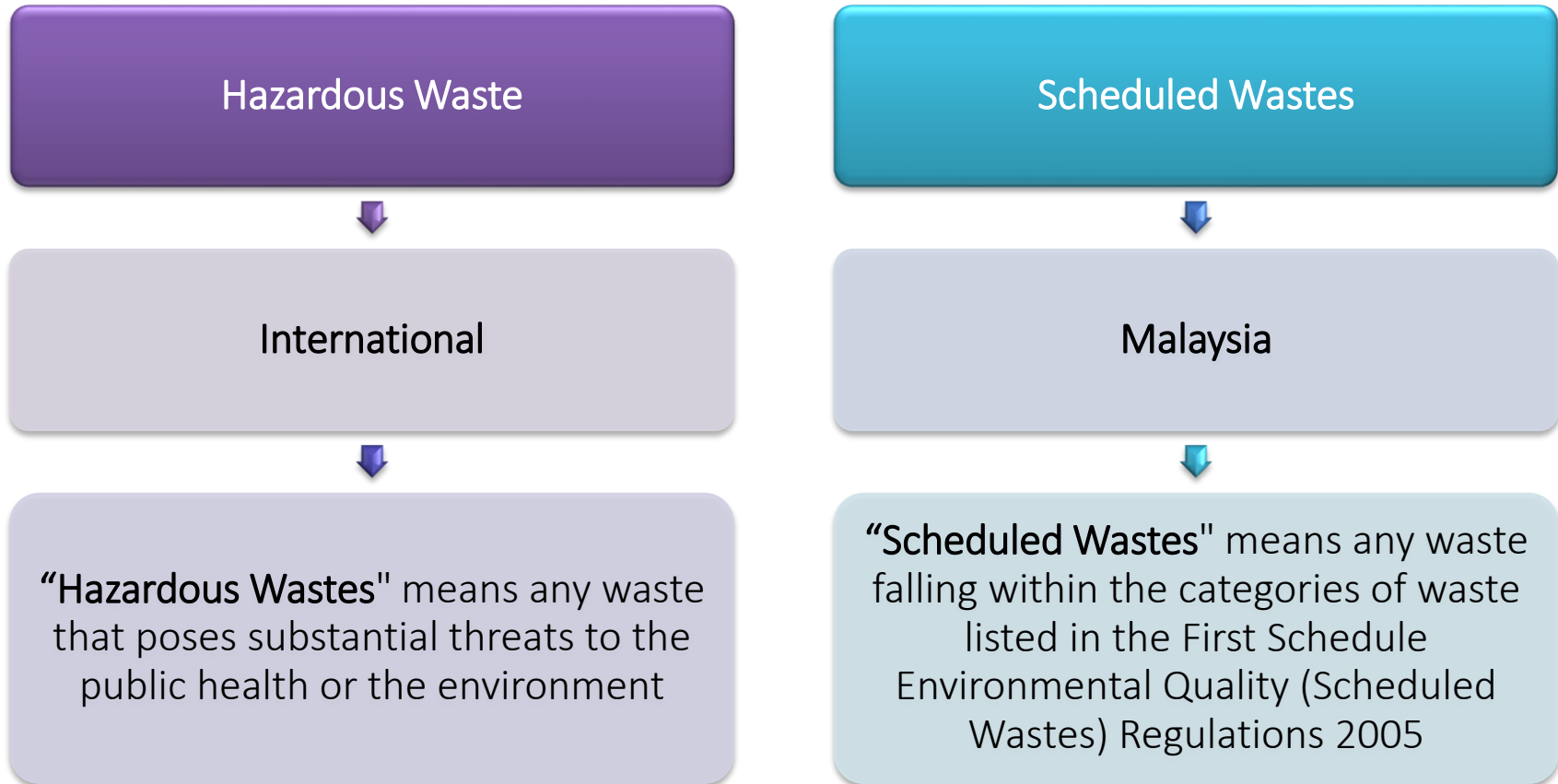
- Any discarded solid, liquid or contained gas that no longer in used

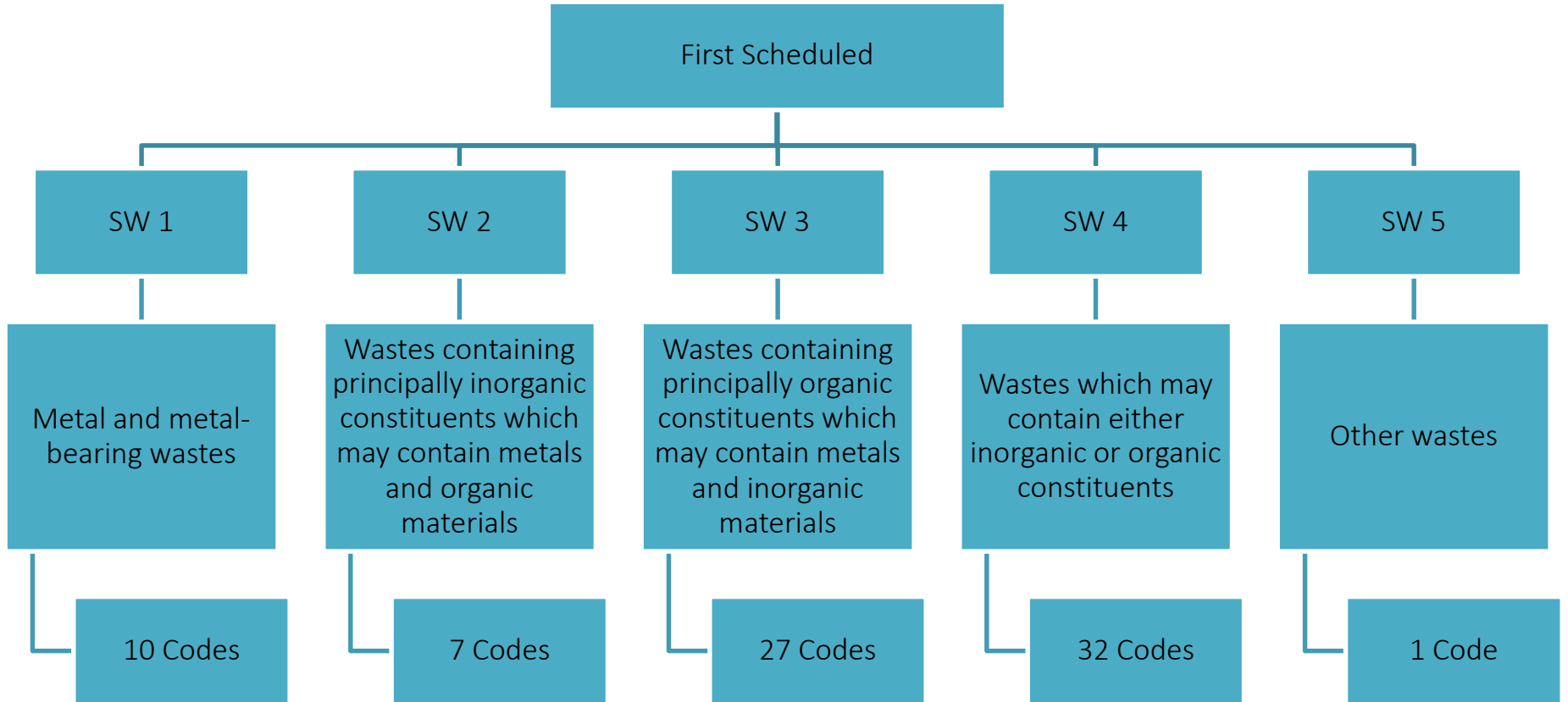
Waste is also regarded as **hazardous** if it possess the followings:

- Fire hazard – explosive, oxidising, flammable
- Health hazard – very toxic, toxic, harmful, corrosive, irritant, carcinogenic
- Harmfull to environment - ecotoxic
- Infectious – causes disease in man or other living organisms

ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Scheduled Waste Definition





ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Scheduled Waste Definition

Why?

Scheduled wastes has the characteristics of toxic and hazard thus it is important to ensure the wastes will be managed properly

Who?

Waste generators are responsible to determine whether the wastes they generate are scheduled wastes

How?

By thorough review of their industrial processes and operations and listing status of the wastes through descriptions in the First Schedule

ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Highlights of the Regulations

Responsibilities of Waste Generator

- 1 Reduce to the maximum extent practicable waste generation using the best practicable means.
- 2 Notify DOE the types and quantities of wastes generated. Keep an up-to-date inventory of wastes generated, treated and disposed of scheduled waste
- 3 Wastes must be kept in proper containers, properly labelled and stored in designated areas
- 4 Wastes can be stored, recovered and treated on-site
- 5 Ensure the scheduled wastes is treated or disposed or recovered at prescribed premises
- 6 Monitor and ensure the scheduled wastes delivered and received at prescribed premises - Consignment Note

ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Highlights of the Regulations

Responsibilities of Treatment/ Disposal/ Recovery Operator

1

Shall be Licensed by DOE to transport, treat and recover. Licences issued based on type of waste

2

Off-site treatment, off-site storage, off-site recovery and disposal are allowed only at prescribed premises

3

Conform the consignment note system upon receiving scheduled wastes

ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 4 – Disposal Of Scheduled Wastes

Scheduled waste shall be disposed of at prescribed premise only



ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 5 – Treatment Of Scheduled Wastes

1. Scheduled waste shall be treated at prescribed premises or at on-site treatment facilities only
2. Residuals from the treatment of scheduled wastes shall be treated or disposed of at prescribed premise



ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 6 – Recovery Of Scheduled Wastes

1. Recovery of material or product from scheduled wastes shall be done at prescribed premises or at on-site recovery facilities
2. Residuals from the treatment of scheduled wastes shall be treated or disposed of at prescribed premise



ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 7 – Application for Special Management of Scheduled Wastes

A waste generator may apply to the Director General in writing to have scheduled waste generated from their particular facility or process exclude from being treated, disposed of or recovered in premises or facilities other than at the prescribed premises or on-site treatment or recovery facilities



ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 8 – Responsibility Of Waste Generator

1. Every waste generator shall ensure that scheduled wastes generated are properly :-
 - i. Stored
 - ii. Treated on-site
 - iii. Recovered on-site for material or product;
 - iv. Delivered to and received at prescribed premises for treatment, disposal or recovery of material or product from scheduled wastes

2. Every waste generator shall ensure that scheduled wastes that are subjected to movement or transfer be:-
 - i. Packaged
 - ii. Labelled
 - iii. Transported

In accordance with the guidelines prescribed by the Director General

Waste Generator



Licensed Contractor

Residue

Off-Site



Disposed at prescribed premises

On-Site

Stored



Treated



Recovered



Waste Generator

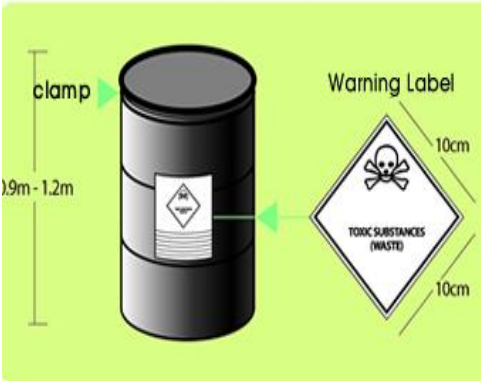


On-Site

Packaged



Labelled



Off-Site

Recovered



Disposed at prescribed premises



Transported By Licensed Contractor

ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 9 – Storage Of Scheduled Wastes

1. Scheduled waste shall be stored in container which are:
 - i. Compatible with the scheduled wastes to be stored
 - ii. Durable
 - iii. Able to prevent spillage or leakage of scheduled wastes into the environment

2. In compatible scheduled waste shall be stored in separate containers, and such container shall be placed in separate secondary containment areas

3. Containers containing scheduled wastes shall always be closed during storage except when it is necessary to add or remove the scheduled wastes

ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 9 – Storage Of Scheduled Wastes

4. Areas for the storage of the containers shall be:-
 - i. Designed
 - ii. Constructed
 - iii. Maintained

In accordance with the guidelines to prevent spillage or leakage of scheduled wastes into the environment

5. Any person may store scheduled wastes generated for **180 days or less** after its generation provided the quantity accumulated on site shall **not exceed 20 MT**

Scheduled Wastes Container



Scheduled Wastes Storage Area



ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 10 – Labelling of Scheduled Wastes

1. The container that are used to store scheduled wastes shall be clearly labelled with:-
 - i. Date when the scheduled wastes are first generated
 - ii. Name, address and telephone number of the waste generator

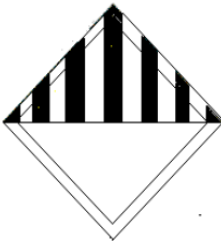
 MIXTURE OF MISCELLANEOUS DANGEROUS SUBSTANCES (WASTE)	
Waste code	:
Waste name	:
Date generated	:
Name of waste generator	:
Address and telephone number	:

Figure 3: Example of label for scheduled wastes container

2. Containers of scheduled wastes shall be clearly labelled in accordance with the types applicable to them as specified in the Third Schedule



ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 11 – Inventory of Scheduled Wastes

Waste generator shall keep the inventory:-

- i. Accurate
- ii. Up-to-date

In accordance with the Fifth scheduled on the:-

- i. Categories
- ii. Quantities
 - i. Generated
 - ii. Treated
 - iii. Disposed

Keep the inventory record for a period of **3 years** from the date of scheduled wastes was generated

ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 12 – Information To Be Provided

A waste generator, contractor and occupier of the prescribed premises shall provide information in accordance with the Sixth Scheduled – Consignment Note

Waste generator

- Complete Part I in six copies and hand over to the contractor
- Received 2 copies from the contractor with Part II completed
- Submit 1 copy to DOE within 30 days

Contractor

- Complete Part II and deliver the wastes and 4 copies of the consignment to the occupier

The occupier of the prescribed premises

- Complete Part III – 1 copy return to contractor
- 1 copy return to wastes generator
- 1 copy submit to DOE within 20 days

ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 13 – Transport of Scheduled Wastes must be accompanied by Information

Waste generator	shall provide information in accordance with the Seventh Schedule in respect of each category of scheduled wastes to be delivered
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	shall inform the contractor of the purpose and use of the Seventh Schedule
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The contractor	shall carry with him the Seventh Schedule for each category of schedule wastes being transported
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	shall select transportation routes as far as possible to avoid dense populated area, water catchment area and other environmentally sensitive areas.
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	shall ensure that all his employee attend training program
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ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 14 – Spill Or Accidental Discharge

Waste generator

- shall provide technical expertise and supporting assistance in any clean-up operation

The contractor

- In the event of any spill or accidental discharge of any schedule waste shall immediately inform DOE of the occurrence
- shall do everything that is practicable to contain, cleanse or abate the spill or accidental discharge and to recover substances involved in the spill or accidental discharge
- shall undertake studies to determine the impact of the spillage or accidental discharge on the environment



ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

Regulation 15 – Conduct of Training

Every waste generator shall ensure that all his employees involved in:

- i. Identification
- ii. Handling
- iii. Labelling
- iv. Transportation
- v. Storage
- vi. Spillage or discharge response

Of scheduled wastes attend training programmes



ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005...CONT...

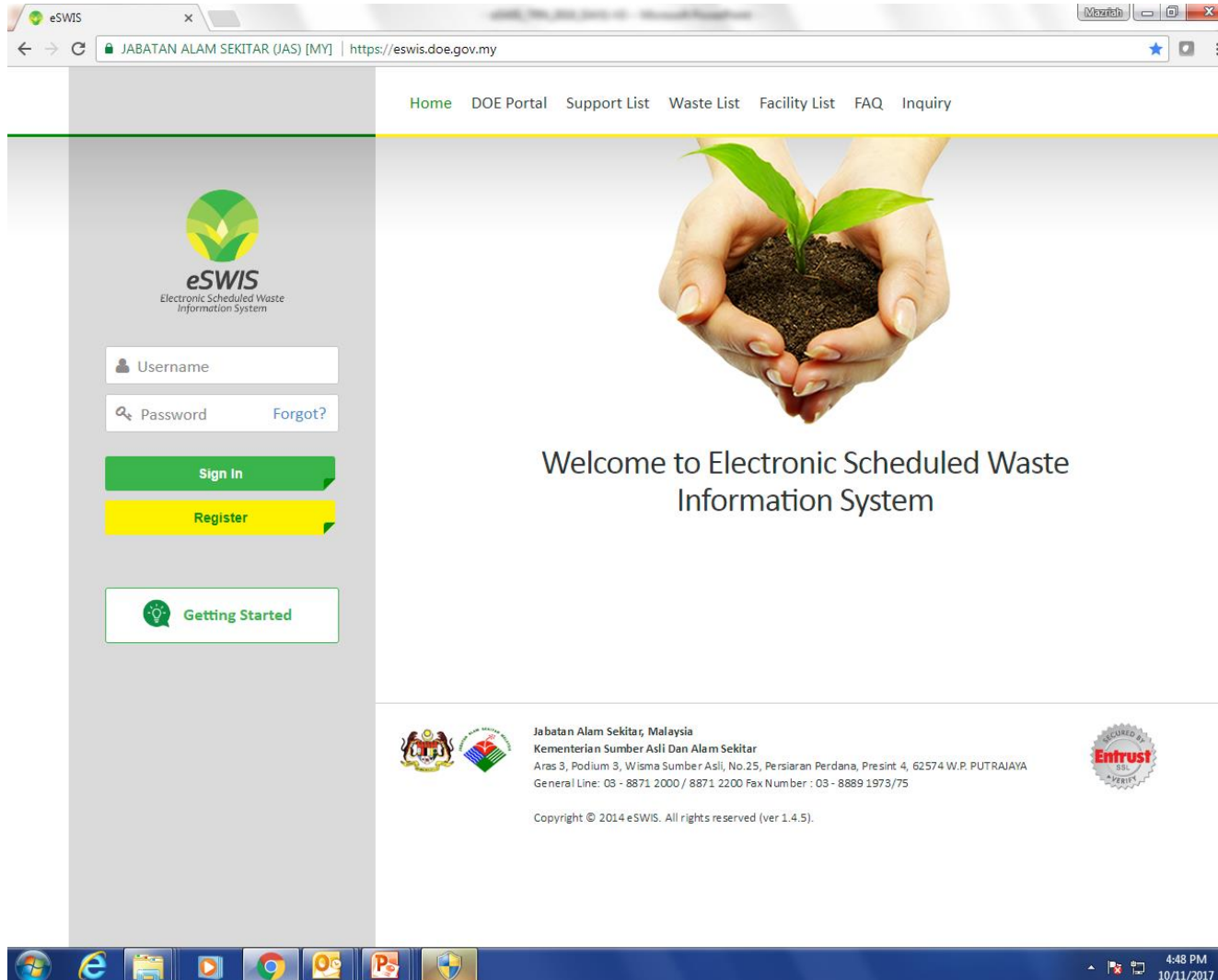
Regulation 16 – Compounding of Offences

Every offences which consists of any omission or neglect to comply with or any act done or attempted to be done contrary to these Regulations may be compounded.

Maximum compound RM 2,000.00



Electronic Scheduled Wastes Information System (ESWIS)



The screenshot shows a web browser window with the URL <https://eswis.doe.gov.my>. The page features a navigation menu with links for Home, DOE Portal, Support List, Waste List, Facility List, FAQ, and Inquiry. On the left side, there is a sidebar with the eSWIS logo and the text "Electronic Scheduled Waste Information System". Below the logo are input fields for Username and Password, a "Forgot?" link, and buttons for "Sign in" and "Register". A "Getting Started" button is also present. The main content area displays a large image of hands holding a small green plant, with the text "Welcome to Electronic Scheduled Waste Information System" centered below it. At the bottom of the page, there is contact information for Jabatan Alam Sekitar, Malaysia, including the address, phone number, and fax number. A "Secured by Entrust" logo is also visible. The Windows taskbar at the bottom shows the time as 4:48 PM on 10/11/2017.

ENVIRONMENTAL QUALITY (PRESCRIBED PREMISES)(SCHEDULED WASTES TREATMENT AND DISPOSAL FACILITIES) ORDER 1989



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Prescribed Premises vs Prescribed Activities

Prescribed Premises	Prescribed Activities
Off-Site Storage Facilities	Construction of Storage Facility (Off-Site)
Off-Site Treatment Facilities	Construction of Recovery or Treatment Plant (Off-Site)
Off-Site Recovery Facilities	Construction of Thermal Treatment
Scheduled Waste Incinerators	
Land Treatment Facilities	Construction of Secure Landfill Facility
Secure Landfills	



ENVIRONMENTAL QUALITY (PRESCRIBED REMISES) (SCHEDULED WASTES TREATMENT AND DISPOSAL FACILITIES) REGULATIONS 1989



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Highlights of the Regulations

- Came into force on 15 August 2005
- This regulations contain 16 Regulations
- Responsibilities of Treatment/ Disposal/ Recovery Operator

1

Shall be Licensed by DOE to transport, treat and recover. Licences issued based on type of waste

2

Comply in every conditions stated in the licence

3

Keep an up-to-date inventory of type and quantities of scheduled wastes received, stored, treated, recovered, destroyed, disposed. **Submit** the inventory for every period of three (3) months.

4

Fee for written permission under Section 19 - RM1,000.00.
Fee for a licence under Section 18 – RM 100.00



BASEL CONVENTION

On the Control of Transboundary Movements of Hazardous Wastes and Their Disposal



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ENTERED INTO FORCE ON 5TH MAY 1992

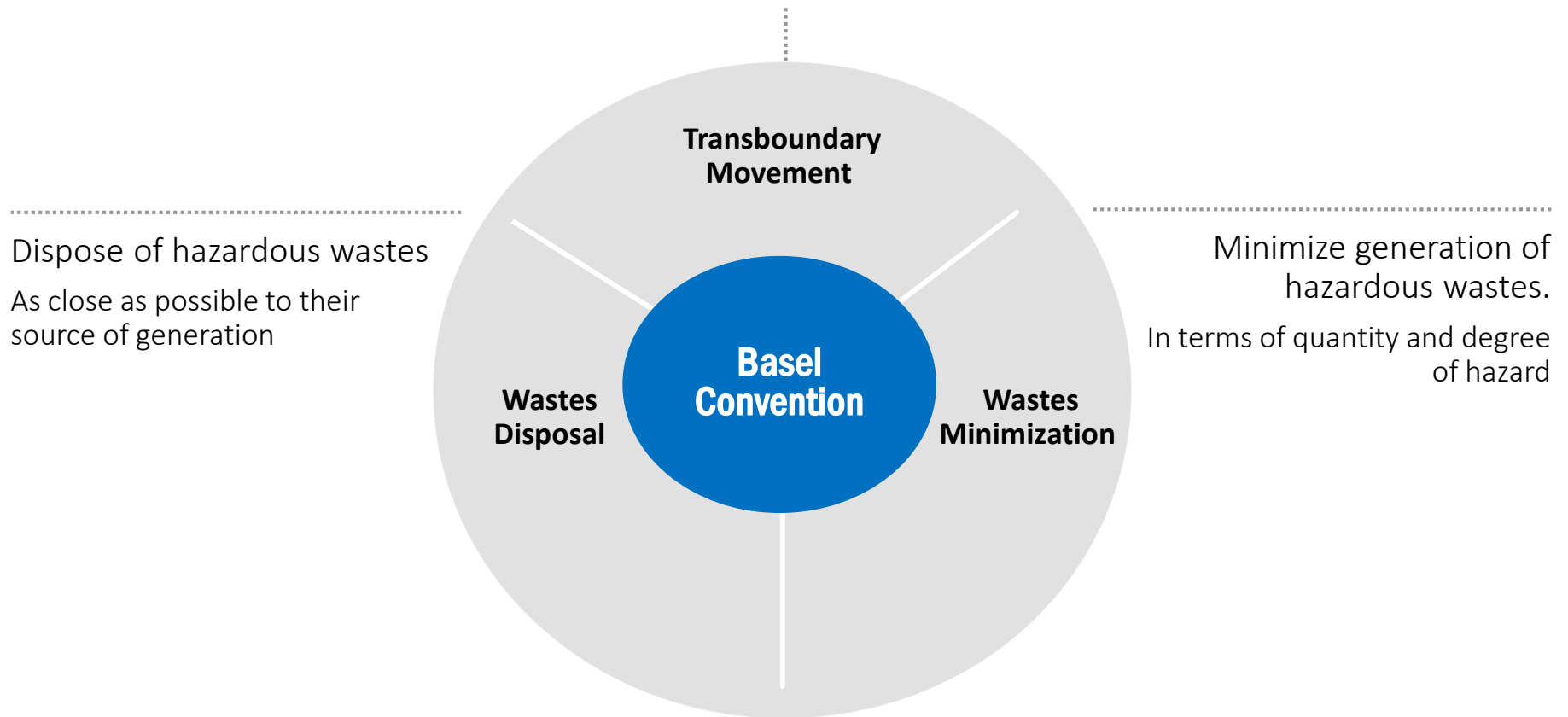
186 PARTIES AS OF 30TH JUNE 2017

MALAYSIA BECOME A PARTY IN 8TH OCT. 1993



BASEL CONVENTION (Cont....)

Reduce transboundary movement of hazardous wastes
To a minimum consistent with their environmentally sound management



BASEL CONVENTION (Cont....)

Country Contacts



Focal point (FP)

Job title: Director General

Department: Department of Environment

Institution: Ministry of Natural Resources and Environment



Competent Authority (CA)

Job title: Director

Division/Department: Hazardous Substances Division, Department of Environment

Institution: Ministry of Natural Resources and Environment



Competent Authority (CA)

waste related to Y46- Waste collected from households (Annex II to BC)

Job title: Director General

Department: Department of National Solid Waste Management

Institution: Ministry of Urban Well being, Housing and Local Government

BASEL CONVENTION (Cont....)

The Pillars Of Basel Convention



BASEL CONVENTION (Cont....)

Scope Of The Convention

APPLIES TO :

1. Hazardous Waste
 - i. Wastes in Annex I, unless not containing Annex III characteristics
 - ii. Hazardous waste as defined by domestic laws
2. Other wastes
 - i. Wastes in Annex II

DOES NOT APPLY TO :

1. Radioactive wastes
 - Covered under International Convention on the Safety of Radioactive Management
2. Discharges from normal ship operations
 - Covered under International Convention for the Prevention of Pollution from Ships

BASEL CONVENTION (Cont....)

Objective Of Basel Convention



Designed to reduce the movements of hazardous waste between nations



To prevent transfer of hazardous waste from developed to less developed countries



To minimize the amount and toxicity of wastes generated and to ensure their environmentally sound management as closely as possible to the source of generation



To assist less developed countries in environmentally sound management of the hazardous and other wastes they generate.

BASEL CONVENTION (Cont....)

Principles Of The Basel Convention

1

Hazardous waste should be disposed of in the State where it is generated

2

Trans-boundary movement of hazardous wastes should be permitted only when the transport and ultimate disposal of such waste is environmentally sound

3

Prior written consent and notification must be implemented by the exporting state to the importing and transit states

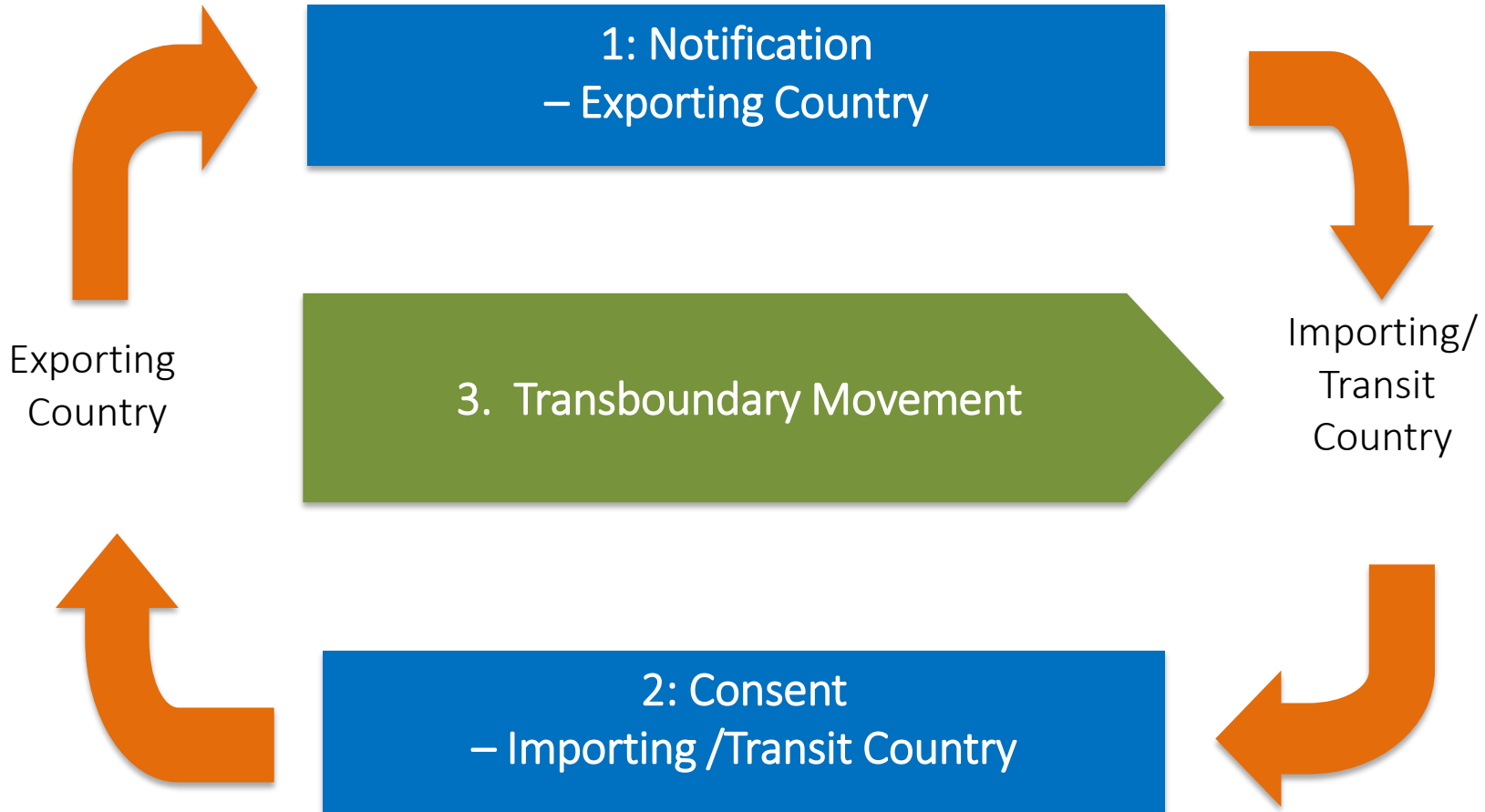
4

The exporter should re-import the waste if for some reason the shipment of waste is not successful

BASEL CONVENTION (Cont....)

How It Works

- Basel Convention Regulates the Transboundary Movement of Hazardous and other wastes through the procedure of 'Prior Informed Consent (PIC)'
- PIC is required before any export may take place
- The authorities of the State of export need to notify the authorities of the prospective State of import and transit
- Notification shall complete with detailed information on the intended movement
- The movement can only take place if and when all States concerned have given their written consent.



BASEL CONVENTION (Cont....)

Implementation Of Basel Convention In Malaysia

1989

22 March 1989
Adopted in
Basel,
Switzerland

1992

5 May 1992
Entered into
force

1993

8 Oct. 1993
Malaysia
acceded to the
Basel
Convention

1994

6 Jan. 1994 The
Convention
came into force
in Malaysia

1995

22 Sept. 1995
Ban
Amendment
adopted on

2001

26 Oct. 2001
Malaysia ratify
the Ban
Amendment

BASEL CONVENTION (Cont....)

Ban Amendment

- Recognizing the TBM of hazardous wastes, especially to the developing countries, have a high risk of not constituting an ESM of hazardous wastes as required by this Convention
- Each Party Listed in Annex VII shall prohibit all TBM of hazardous wastes under Article 1(1)(a) of the Convention which are destined for operations according to Annex IV(A) and (B) to the States not listed in Annex VII
- States Listed in Annex VII
 - i. Members of OECD (Organisation for Economic Co-operation and Development);
 - ii. EC (European Commission); and
 - iii. Liechtenstein



Thank you.
Q & A