



**Department Of Environment**  
Ministry of Natural Resources and Environment



# **Control of Transboundary Movement of Hazardous Wastes in Malaysia**

**Department of Environment  
Malaysia  
[www.doe.gov.my](http://www.doe.gov.my)**



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# What is Hazardous Wastes?

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- Hazardous waste is defined as any waste falling within the categories of waste listed in the First Schedule of the Environment Quality (Scheduled Wastes) Regulations 2005.



# FIRST SCHEDULE

## (Regulation 2)

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### **SW 1 Metal and metal-bearing wastes**

SW 101 Waste containing arsenic or its compound

SW 102 Waste of lead acid batteries in whole or crushed form

SW 103 Waste of batteries containing cadmium and nickel or mercury or lithium

SW 104 Dust, slag, dross or ash containing arsenic, mercury, lead, cadmium, chromium, nickel, copper, vanadium, beryllium, antimony, tellurium, thallium or selenium excluding slag from iron and steel factory

SW 105 Galvanic sludges

SW 106 Residues from recovery of acid pickling liquor

SW 107 Slags from copper processing for further processing or refining containing arsenic, lead or cadmium

SW 108 Leaching residues from zinc processing in dust and sludges form

SW 109 Waste containing mercury or its compound

SW 110 Waste from electrical and electronic assemblies containing components such as accumulators, mercury-switches, glass from cathode-ray tubes and other activated glass polychlorinated biphenyl-capacitors, or contaminated with cadmium, mercury, lead, nickel, chromium, copper, lithium, silver, manganese or polychlorinated biphenyl



## Policy on import/export of hazardous wastes and secondhand items such as electrical and electronic equipment(E-waste)

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- ✓ **Malaysia does not allow the importation of hazardous waste including e-waste into the country;**
- ✓ **Malaysia does allow importation of used electronic and electrical equipment into country for direct reuse, provided such equipment shall not be more than three years from the date of its manufacture.**
- ✓ **This policy is described under the “Guidelines for the Classification of Used Electrical and Electronic Equipment in Malaysia”, published by the DOE in 2008**



## Policy on import/export of hazardous wastes and secondhand items such as electrical and electronic equipment(E-waste)

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- Since there are already recovery facilities established in Malaysia to process and recover useful materials from hazardous wastes, it is also the policy of the Government of Malaysia not to allow hazardous wastes to be exported out of the country;**
- Malaysia will only allow the exportation of hazardous wastes for recovery in overseas, if the local recovery facilities do not have capability and capacity to carry out such activity.**
- Before DOE can allow hazardous wastes to be exported, the wastes generator/exporter must submit their proves.**
- The consideration for such exportation is based on case by-case basis and the exportation of hazardous wastes for final disposal is not allowed.**





# LEGISLATION FOR THE CONTROL OF TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTES

- o Environmental Quality (Scheduled Wastes) Regulations 1989, made under the Environmental Quality Act 1974 which regulate the generation, transportation and disposal of wastes through a notification and licensing system for facilities. Now replaced with Environmental Quality (Scheduled Wastes) Regulations 2005
- o The Environmental Quality Act 1974 (EQA) was amended in 1996 to include specific and stringent provisions on the control of export, import and transit of scheduled wastes in Section 34B. Penalties for illegal trafficking had also being increased up to RM 500,000.00 or five years imprisonment or both.
- o Under the new amendment of section of 34B, EQA in 2007, the maximum penalty against placing, deposit, etc., of scheduled wastes is mandatory jail not exceeding of 5 years and fine not exceeding of RM 500,000.00



# LEGISLATION FOR THE CONTROL OF TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTES

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✓ To further support the implementation of the Basel Convention in Malaysia, the following Orders were formulated under the Customs Act 1967:

- i. Customs (Prohibition of Export) Order 2008 ; and
- ii. Customs (Prohibition of Import) Order 2008.

enforced by the Royal Customs Department in cooperation with the (DOE).

✓ Under these law, the import / export of hazardous wastes is prohibited unless prior written approval is obtained from the DG of DOE, who is the designated Competent Authority and Focal Points for Malaysia. These Orders are now replaced by the following:





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# **GUIDELINES FOR THE CLASSIFICATION OF USED EEE IN MALAYSIA**



# What is E-Wastes?

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- SW110 - First Schedule, environmental Quality (Scheduled Wastes) Regulations 2005
- Wastes from the eee containing components – accumulators, mercury switches, glass from CRT or polychlorinated biphenyl- capacitors or contaminated with Cd, Hg, Pb, Ni, Cr, Cu, Li, Ag, Mn or PCB

# DEFINITION

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- Direct Re-use : any operation by which discarded electrical or electronic equipment or components are used for the same purpose for which they were conceived, inc the continued use of the whole systems or components

# DEFINITION

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Recycling : removing or using the material from the manufactured equipment as part of raw materials for new products or components

Recovery : any operation for the purpose of retrieval of valuable material or product from e-waste

Disposal : Method of final disposition, final placement or destruction of e-waste



# CATEGORY OF E-WASTE

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- Used television, a/c unit, computer, refrigerator, washing machine, video recorder, microwave..
- Used telephone, Photostat machine, facsimile, printers, motherboard, hdd
- Used electric cable, lead frame, patterned wafer, ink cartridges,
- Waste or products from partial recovery facilities

# CHARACTERISTICS OF E- WASTE

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- A defect that materially affects its functionality eg DOES NOT POWER UP
- Physical damage that impairs its functionality or safety
- A faulty hard disc drive, RAM and video card
- Batteries made of Pb, Hg, Cd, Li, Ni – unable to charge



# CHARACTERISTICS OF E- WASTE

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- Insufficient packaging to protect it from damage during transportation
- The appearance – generally worn / damaged
- The EEE are for recovery, recycling, disposal
- The EEE are discarded or intended or required to discard

# CHARACTERISTICS OF E- WASTE

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- The used EEE are old / out dated
- No regular market
- End of life of EEE
- Products/goods produced by partial e-waste recovery facilities

# WHAT ARE USED EEE?

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- Electrical and Electronic components which are not contaminated or non dispersible form such as metal or plastic casing of computer
- Electrical and Electronic assemblies that are functioning and destined for direct re-use and not for recycling/ recovery/ disposal

# WHAT ARE USED EEE?

- New and unused EEE or components made in Malaysia that are returned by the importing countries as defective items;
- New EEE or components made in Malaysia that are returned to as defective batches for repair to the manufacturer ( under warranty) with the intention of re-export;
- Blank wafers or non patterned wafers or test wafers; and
- Off cut lead or copper frames not contaminated with heavy metals
- For importing purposes – the age of the EEE must not be more than 3 years

TABLE 1: CRITERIA FOR THE DETERMINATION OF E-WASTE

| QUESTIONS          |   | ANSWER | ACTION  |
|--------------------|---|--------|---|
| QUESTION 1<br>(Q1) | Is the equipment or component covered in paragraph 8 of this guideline?       | YES    | The equipment or component is not categorized as e-waste.<br><br>The exporter or importer need to submit application with documents listed in ANNEX C to the Department of Environment for decision.  |
|                    |   | NO     | Go to QUESTION 2  |
| QUESTION 2<br>(Q2) | Is the equipment or component destined for recycling or recovery or disposal? | YES    | The equipment is categorized as e-waste.<br><br><b>NOT ALLOWED</b> to be imported.<br><br><b>NOT ALLOWED</b> to be exported for the purpose of disposal.<br><br>Export for the purpose of recycling or recovery may be allowed subject to the following conditions:<br><br>(a) Receiving facility agree to accept the waste and have a better technology to process the e-waste compared to current practice in Malaysia;<br><br>(b) The exportation will gain better economic value;<br><br>(c) The exportation is allowed and comply with the environmental requirement of the importing country; and |

|                 |   |     |  |
|-----------------|---|-----|--|
|                 |   |     | (d) The exportation shall be fully complied with Basel Convention procedure.   |
|                 |   | NO  | Go to QUESTION 3   |
| QUESTION 3 (Q3) | Is the age of equipment or component more than 3 years from the date of manufactured?   | YES | The equipment is categorized as e-waste.<br><b>NOT ALLOWED</b> to be imported.   |
|                 |   | NO  | Go to QUESTION 4   |
| QUESTION 4 (Q4) | Is the equipment or component destined for direct re-use?   | YES | Go to QUESTION 5   |
|                 |   | NO  | The equipment is categorized as e-waste.<br><b>NOT ALLOWED</b> to be imported.   |
| QUESTION 5 (Q5) | Has the equipment or component been tested and found to have any fault as listed in paragraph 7 in this guideline?  | YES | The equipment is categorized as e-waste.<br><b>NOT ALLOWED</b> to be imported.   |
|                 |   | NO  | Go to QUESTION 6   |
| QUESTION 6 (Q6) | Has the result of the testing been documented and do not indicate any of the fault listed as in paragraph 7, and also certified by a competent authority or certified body or relevant agency in the country of export? | YES | The equipment or component is not categorized as e-waste.<br><br>The exporter or importer need to submit application with documents listed in ANNEX C to the Department of Environment for decision. |
|                 |   | NO  | The equipment is categorized as e-waste.<br><b>NOT ALLOWED</b> to be imported.   |



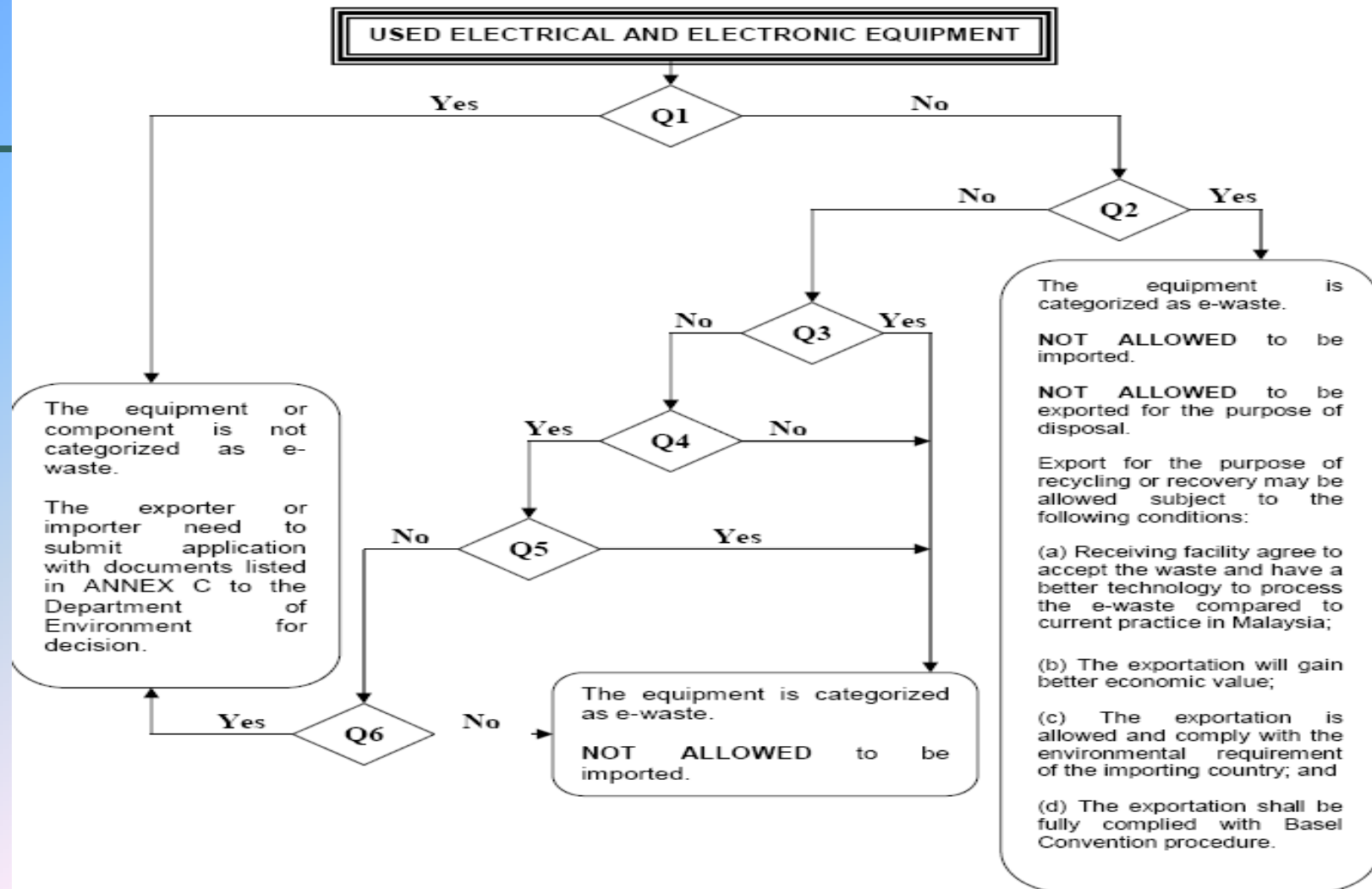


FIGURE 1: CRITERIA FOR THE DETERMINATION OF E-WASTE

**CHECKLIST**  
**FOR IMPORTERS AND EXPORTERS OF USED ELECTRICAL**  
**AND ELECTRONIC EQUIPMENT/COMPONENTS**

| Subject   | For Official Use |
|---|------------------|
| <b>A. General Information</b>   |                  |
| Name of Applicant :<br>Applicant Designation<br>Address of Applicant:<br>Telephone :<br>Telefax :<br>E-mail :   |                  |
| Name of Premise :<br>Address of Premise :<br>Telephone :<br>Telefax :<br>E-mail :<br>Custom Tariff Code(H.S Code) :<br>Port of Entry :<br>Country of Origin : |                  |

## B. Operational Information

Justification for application (specify the reasons for import/export \*):

Description of production processes and the relevant flow diagrams of the imported material :

List of final products and quantity produced per month:  
(Example: recovered precious metal, direct re-use etc)

Operational licenses from relevant agencies, eg. Local Authority, MITI, DOE, ROC/ROB, etc.

List of used electrical and electronic equipment/components and their quantities to be imported/exported \* :  
(Inventory list should include the brand name, model, serial number, year of manufacturing, status of equipment/component and date of inspection)

Certificate of Inspection from a competent authority or certification body or any other relevant agency for the status of the items to be imported/exported \* :

Contractual agreement with concerned parties (for purposes of re-use, recovery or recycling) :

Method of packaging :



# LIST OF APPLICATION FORMS

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- **Transboundary Movement of Waste Notification Form.**
- **Form AS 14 (Rev. 2006) – Application for the importation of scheduled waste into Malaysia, and checklist.**
- **Form AS 15A (Rev. 2006) – Application for the export of scheduled waste from Malaysia, and checklist.**



# Documents Required

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- Information on waste generator
- Information on consignee/receiver/facility
- Licensed transporter
- Contractual agreement (Waste generator + Transporter + Facility operator )
- Information on the waste
- Justification for export/import
- Bank guarantee (Export – RM 25,000 and Import – RM 10,000)



# Documents Required

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- Insurance coverage
- Emergency Response Procedure
- Shipment schedule, route
- Technical information on waste recovery process
  - Flowchart
  - Pamphlet
  - Waste component to be recovered
  - Percentage of residue and disposal





## Specific guidelines for the import/export of hazardous wastes

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- i. Guidelines for the Export Scheduled Wastes, 1995 ;
- ii. Guidelines for the Import Scheduled Wastes, 1995 ;
- iii. Notification and Control Procedure Adopted by Malaysia and Singapore for Movement of Wastes Between the two Countries; and
- iv. Additional Requirement for Applications to Export Scheduled Wastes, 1998



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# **Import and export statistics of Hazardous wastes**



# Table 1

## Malaysia : Quantity of Scheduled Wastes Imported (Tonnes) by Type and Origin 2007-2011

| TYPE OF WASTE                 | YEAR   |        |        |        |        |
|-------------------------------|--------|--------|--------|--------|--------|
|                               | 2007   | 2008   | 2009   | 2010   | 2011   |
| COPPER SLAG                   | 28400  | 44000  | 60000  | 60000  | 16000  |
| WASTE GYPSUM FROM POWER PLANT | 84890  | 56400  | 96850  | 172500 | 135000 |
| WASTE GLASS FROM CRT          | 14966  | 40000  | -      | -      | -      |
| SPENT ACID                    | 3276   | 2540   | 1067   | 7200   | 1525   |
| CALCIUM HYDROXIDE SLUDGE      | 1542   | 6595   | 12960  | 56200  | 5033   |
| TOTAL TONNES                  | 133074 | 149535 | 170877 | 295900 | 157558 |



# Malaysia : Quantity of Wastes Exported by Type of Waste (Tonnes), 2007-2011

| Type of Waste \ Year              | 2007        | 2008        | 2009        | 2010        | 2011        |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Metal Hydroxide Sludge            | 2592        | 2896        | 1186        | 267         | 158         |
| Electrical and electronic Waste   | 2350        | 2089        | 976         | 794         | 1240        |
| Spent Catalyst                    | 794         | 364         | 199         | 13          | 187         |
| Waste organic solvent             | -           | -           | 150         | 155         | 55          |
| Used Blasting Materials           | 119         | 120         | -           | 25          | -           |
| Used Toner                        | 47          | 50          | 110         | 116         | 260         |
| Unrefined semiconductor           | -           | -           | -           | -           | 29          |
| Phenolic Resin                    | -           | 81          | 88          | 90          | -           |
| Waste containing mercury compound | 23          | -           | -           | -           | -           |
| Waste containing formaldehyde     | 133         | -           | -           | -           | -           |
| Nickel Cadmium Battery            | -           | -           | 123         | 57          | 32          |
| Zinc Dross                        | 1050        | 200         | -           | -           | -           |
| <b>TOTAL TONNES</b>               | <b>7108</b> | <b>5720</b> | <b>2833</b> | <b>1517</b> | <b>1961</b> |

## Malaysia : Quantity of Scheduled Wastes Exported by Destination (Tonnes), 1999 - 2003

| Importing Country   | 1999         | 2000         | 2001         | 2002         | 2003         |
|---------------------|--------------|--------------|--------------|--------------|--------------|
| Australia           | 280          | 69           | -            | 315          | 209          |
| Germany             | 80           | 470          | 159          | 128          | 349          |
| Holland             | 1,266        | 1,234        | 487          | 570          | 323          |
| Italy               | -            | -            | 107          | 44           | 28           |
| Japan               | 1,103        | 1,503        | 68           | 1,035        | 1,007        |
| Finland             | -            | -            | -            | 100          | 23           |
| France              | 80           | 108          | -            | 67           | 99           |
| Philippines         | 1,073        | -            | 532          | -            | -            |
| Singapore           | 27           | 500          | -            | 170          | -            |
| South Africa        | 45           | -            | -            | -            | -            |
| South Korea         | 23           | -            | -            | -            | 118          |
| Sweden              | 102          | 203          | 27           | 149          | 7            |
| Switzerland         | -            | 10           | -            | -            | -            |
| Belgium             | -            | -            | -            | -            | 140          |
| USA                 | 1,107        | 753          | 1,295        | 533          | 60           |
| <b>Total Tonnes</b> | <b>5,186</b> | <b>4,878</b> | <b>2,675</b> | <b>3,110</b> | <b>2,361</b> |



# RETURN SHIPMENT

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- 2008 - 9 shipment back to origin country such as Hong Kong, USA (2), Canada (3), Japan, Korea and The Philippines (2)
  - 2009 - 4 shipment back to origin country such as New Zealand, USA, Hong Kong and Indonesia
- \* Does not fulfill the domestic regulation and guidelines as well as the International Convention on the transboundary movement of hazardous waste



# LEGAL ACTIONS ON E-WASTE

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- ✓ In 2009, Malaysia intercepted 29 illegal shipments containing e-wastes and returned them to the exporting countries;
- ✓ Under the new amendment of section of 34B of the Environmental Quality Act 1974 which was made in 2007, the maximum penalty against placing, deposit, etc., of scheduled wastes is mandatory jail not exceeding of 5 years and fine not exceeding of RM 500,000.00
- ✓ In October 2009, a company manager was sentenced one day in jail and to a fine of RM 180,000.00 for illegally imported e-waste.









# CHALLENGES

- Building the technical capacity of the custom officers and the competent authority officers, especially in the field of wastes identification & analysis, and in environmental crime investigation & enforcement.
- Strengthening linkages/communications between the enforcement agencies, such as the Port Authorities, Customs and the Department of Environment in order to deter illegal trafficking.
- Efficient and effective exchange of information among the exporting and importing countries.



*THANK YOU*  
*TERIMA KASIH*

