



ENVIRONMENTAL QUALITY ACT 1974: ENFORCEMENT AND HAZARDOUS WASTE MANAGEMENT IN MALAYSIA

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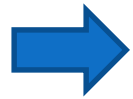
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• **WAY FORWARD**

INTRODUCTION

- ❖ Society progresses , more waste that causes environment problems including public health
- ❖ 1983-1985, preliminary survey 0.38 mill tonnes was generated
- ❖ 1987, feasibility study on treatment and disposal options for hazardous waste was carried out
- ❖ 1990-2008, the amount of SW has grown with increased industrialization.
- ❖ Illegal dumping/Uncontrolled disposal of hazardous waste and finally demanded costly measures for clean-up

Integrated Hazardous Waste Treatment and Disposal Facility



Kualiti Alam Sdn. Bhd(KASB), November 1998



Trikens Sdn. Bhd. Sarawak, 2004

➤ **Licensed Off Site Recovery (517)**

POLICY AND LEGISLATION

☐ National Legislation Measure:

- ✓ Environmental Quality Act (EQA) 1974
- ✓ 4 sets of regulations:
 - EQ (Scheduled Wastes) Regulations , 1989
 - EQ (Prescribed Premises) (SWT & DF) Regulations, 1989
 - EQ (Prescribed Premises) (SWT & DF) Order, 1989
 - EQ (Scheduled Wastes) Regulation, 2005

- **International Legal Binding**

- Basel Convention on Transboundary Movement of Hazardous Waste and Their Disposal, 1993
- Came into force in Malaysia on 6 June 1994
- EQA 1974 and Customs Act 1967 provisions are used in the implementation of Basel Convention

- **Import-Export Control**

- Customs Act 1967
- Customs (Prohibition of Export) Order 2012
- Customs (Prohibition of Import) Order 2012
- Guidelines on the Policies and Procedures in the Export and Import of Wastes, 1994

DEFINITION

SCHEDULED WASTE

Any waste falling within the categories listed in the First Schedule of Environmental Quality (Scheduled Wastes) Regulations 2005

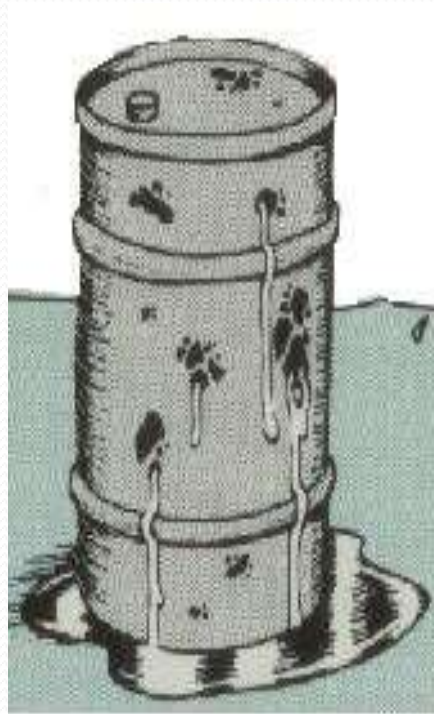
Scheduled waste is potentially harmful because it presents potential risks to:

- human health; and
- the environment

WASTE CHARACTERISTIC



Ignitability



Corrosivity



Reactivity



Toxicity

QUANTITY OF SCHEDULED WASTES GENERATED (MT)

YEAR 2000

344,550.34

YEAR 2013

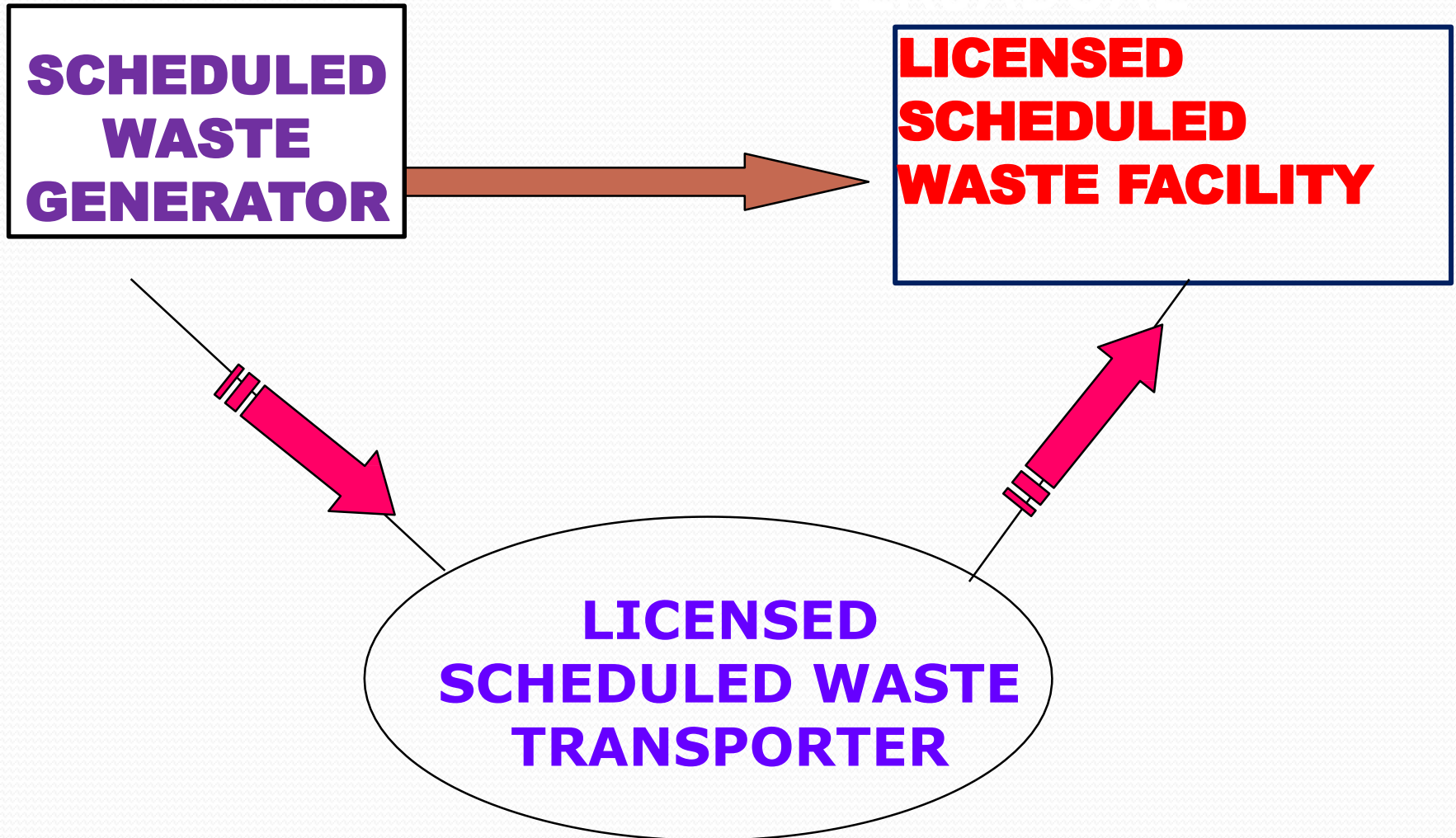
2,965,611.65

YEAR 2014

2,541,762.34

YEAR 2000	YEAR 2013	YEAR 2014
344,550.34	2,965,611.65	2,541,762.34

SCHEDULED WASTES REGULATIONS



TYPES OF FACILITIES REQUIRING LICENCE

– Section 18 EQA 1974

- Transportation
- Off-site storage
- Off-site recovery
- Off-site treatment
- Scheduled waste incinerator
- Land treatment
- Secure landfill

22.4.2013 – CHEMICAL WASTE

15.3.2007 – PAINT SLUDGE & SOLVENT

TOXIC CHEMICALS

NST 22/4/2013 (14)

Schools need to know how to dispose of it

THE chemical explosion at SMK Datuk Lokman in Kampung Pandan following a spill is a grave matter which must be given utmost attention. Although there were no serious injuries, other than 19 students and two teachers who experienced nausea after inhaling the chemical, the incident should serve as a lesson. It is a wake-up call to other schools in the country. The incident happened when eight barrels of chemicals that had been used in the school's science labs were being transported for disposal by a private contractor. One of the barrels tipped over while being loaded onto a truck. This resulted in the spillage, which caused the explosion and a fire. The Fire and Rescue Department must be complimented for acting swiftly to contain the accident. The whole incident has brought into question the issue of chemicals hazardous to health, the disposal of chemical waste in accordance with the Environmental Quality (Scheduled Wastes) Regulations 2005 and the storage of the scheduled waste. Under the Environmental Quality (Scheduled Wastes) Regulations 2005, every waste generator (in this case, the school) shall ensure that the scheduled waste generated is properly treated, stored and disposed of. Every waste generator shall ensure that the scheduled waste that is subjected to movement or transfer be packaged, labelled and transported in accordance with the guidelines prescribed by the director-general of the Department of Environment. Scheduled waste shall be stored in containers which are compatible with the waste and durable to prevent spillage or leakage. With this in mind, all schools that use chemicals in their science labs must be aware of such regulations in the interest of safety, not only of the students, but also the school workers. The Education Ministry should seek the help of relevant departments and agencies to fully engage all schools in this matter to prevent a repetition of such an incident. Contractors who are appointed by the scheduled waste collector must ensure that they are able to perform their task professionally. The incident has also reinforced the need for school authorities to be fully aware of good occupational safety and health practices in all schools, which are deemed as places of work.

Tan Sri Lee Lam Thee, Chairman, National Institute Of Occupational Safety And Health (Niosh) Malaysia



The chemical explosion at SMK Datuk Lokman has reinforced the need for school authorities to be aware of workplace safety.

DOE confirms drums had toxic wastes

IPOH: The 20 drums found dumped at a village in Manjung contain toxic wastes.

The Department of Environment (DOE) is now preparing to bring charges against the parties involved, including the transporters of the drums.

In the meantime, the culprits have been ordered to clean up the dumpsite.

Perak DOE chief Abu Hasan Mohd Isa said the clean-up started on Monday.

"They will remove all the contaminated soil. This is to safeguard the public's interest. The clean-up should be done by end of the week and everything will be sent to the Kualiti Alam toxic waste plant in Port Dickson," he said.

Investigation papers for submission to the Deputy Public Prosecutor's office are expected to be ready by the end of the week.

"We hope to make full use of the maximum penalties offered by the law to teach these people a lesson," said Abu Hasan.

Last week, Kampung Datuk Seri Kamaruddin villagers discovered

»We hope to make full use of the maximum penalties offered by the law to teach these people a lesson«

ABU HASAN MOHD ISA

the drums on an unused plot of land, some 90km from here.

Abu Hasan said that although the paint sludge and solvents found in the drums had solidified and turned into stable waste, they still posed a danger to the public.

He assured the people that the waterways in the area were free from contamination as there was no leakage.

SW 409: Used containers contaminated with chemicals



Illegal Disposal of SW104 Aluminium Dross In Sg Gatom, Johor



Illegal Disposal of Scheduled Wastes in Port Klang



SW 204 Sludge Wastes Illegally Imported From Taiwan In Pasir Gudang, Johor



Jail for dumping toxic waste

■ By Farrah Naz Karim
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PUTRAJAYA: People who dump toxic waste illegally will be given mandatory jail terms under amendments to be made to the Environmental Quality Act.

At present, the law provides for the maximum fine of RM500,000 or five years' jail, or both.

Natural Resources and Environment Minister Datuk Seri Azmi Khalid said the Cabinet had given the nod for the stiffer punishment.

He said the amendments, to be tabled in Parliament in March, would make the mandatory jail sentence applicable to everyone responsible — from the top down.

"They include the chief executive officers of companies that produce the toxic waste, the waste disposal companies, lorry companies and drivers who transport the waste as well as land owners who allow the materials on their properties," Azmi said at a Press conference yesterday.

He said there were also plans to make companies guilty of toxic waste pollution pay to clean up the mess they had created.

The government is spending an average of RM2 million to clean up an area polluted by hazardous chemical waste.

THE PROBLEM IN NUMBERS

- **RM500,000 fine** or five years jail under present law
- **RM2 million** spent to clean up one polluted area
- **97 cases** of illegal toxic waste disposals in last five years
- For every one registered recycler, there are **20 illegal** recycling traders

He said the existing law was inadequate in the fight against the polluters.

There were 97 cases of illegal toxic waste disposals in the last five years, but none of the guilty parties were given a jail sentence.

They were only made to pay one-third of the maximum fine of RM500,000.

Azmi said the problem of indiscriminate toxic waste disposal also stemmed from the mushrooming of recycling companies, most of which op-

erated illegally.

For every one registered recycler, there are 20 illegal recycling traders that operate without a licence and have no regard for environmental and conservation guidelines and the various conditions set by the government.

He reminded companies that generated toxic waste to engage licensed recyclers as they would also be held responsible, should their waste be disposed off illegally.

Azmi also criticised two

multinationals — an IT and a mobile phone manufacturing giants — for adopting double standards in the disposal of their toxic waste.

Clearly unhappy about his experience at a meeting on transboundary movements of hazardous waste and their disposal, held in Nairobi, Kenya recently, Azmi said although the companies had commendable "cradle to grave" policies on recycling their waste, they did not apply them in their operations in developing countries, including Malaysia.

"They do it in developed countries, including Japan, but when they come here, they do not even bother to talk to us about their plans to help conserve our environment," he said.

"That was what upset me. I only heard their views at an international conference... that was when I called them in to explain and they actually said it all depended on how much noise we make.

"We have been and will continue making a lot of noise," he said.

"We want them to use their systematic waste disposal systems in this country and be responsible."

Azmi said he would be holding a meeting with representatives of the two companies at his office early next month.



Existing laws inadequate, says Datuk Azmi Khalid

Penalty under Section 34B, EQA 1974 (Amendment 2007)

Liable to imprisonment for a period not exceeding 5 years and also a fine not exceeding RM500.00.00



IMPROPER SW STORAGE



PROPER SW STORAGE



PROPER SW STORAGE



SW Storage Area



SW Container and labelled

Scheduled Wastes Labelling

Oxidising
agent



Spontaneously
combustible



Flammable
solid



Dangerous
when wet



EXAMPLE OF PROPER SW LABELLING



NON COMPLIANCE OF EQ(SW) REGULATIONS

- ❖ Failure to notify SW generation
- ❖ No SW labelling
- ❖ SW inventory not up-to-date
- ❖ SW storage area is not designed according to guidelines
- ❖ No consignment note for SW movement and tracking
- ❖ Unsuitable SW container
- ❖ Illegal/unlicensed disposal
- ❖ Unlicensed contractor
- ❖ Unlicensed receiving facility
- ❖ Illegal export/import



20/05/2011



20/05/2011



20/05/2011



20/05/2011







Person in black jacket and blue pants standing in the middle ground, looking towards the right.

White van parked on the right side of the image.



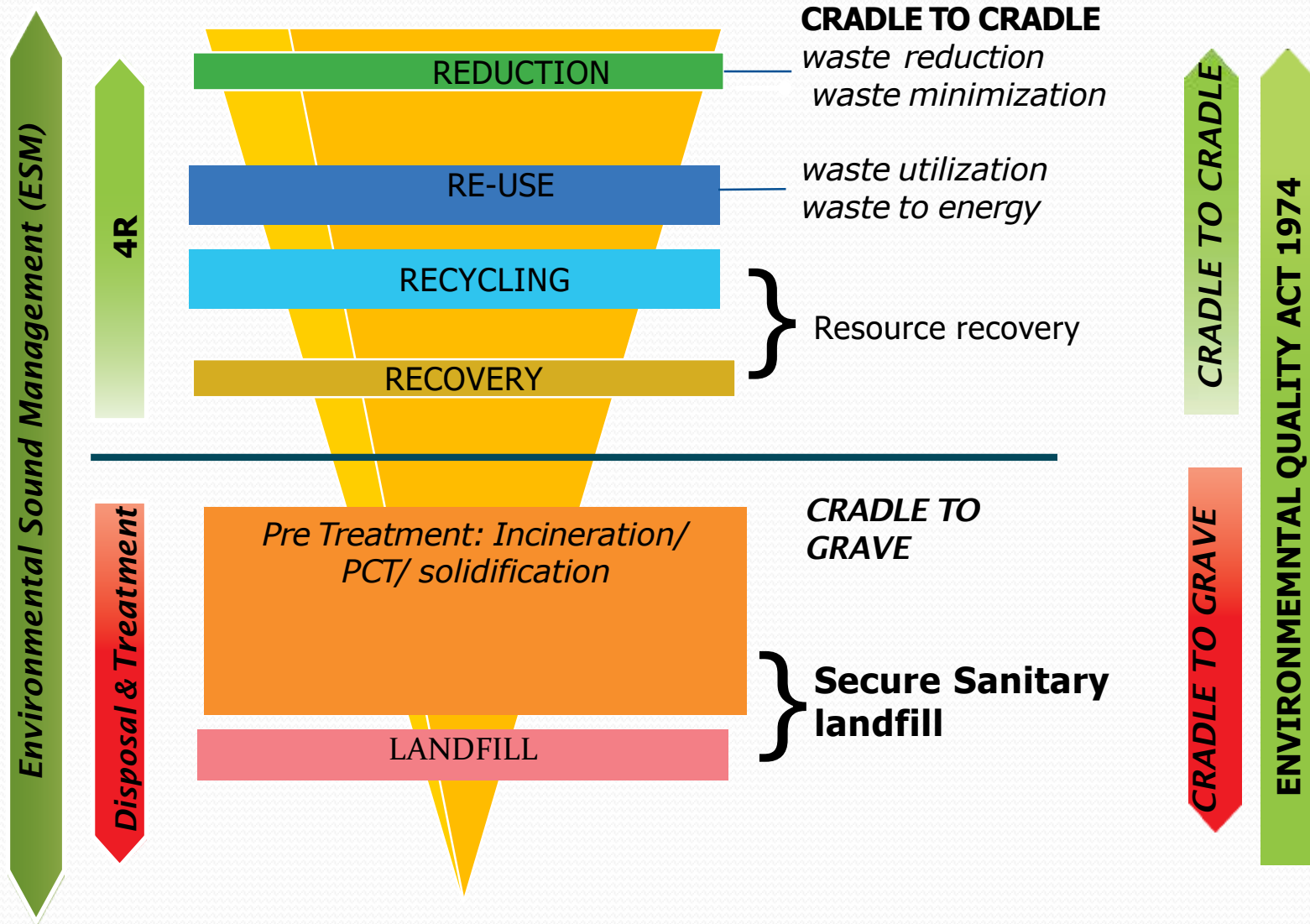








PRINCIPLE OF SCHEDULED WASTES MANAGEMENT- ENVIRONMENTAL LY SOUND MANAGEMENT



Landfill & Storage



Secure Landfill



Off- Site Storage

Scheduled Wastes Incinerator & Recovery facility



Scheduled Waste Incinerator



Scheduled Waste Recovery Facility



POLICIES ON SCHEDULED WASTES MANAGEMENT

- Malaysia does not allow the importation of scheduled waste into the country;
- Since there are already recovery facilities established in Malaysia to process and recover useful materials from hazardous wastes, Malaysia does not allow hazardous wastes to be exported out of the country;
- Malaysia will only allow the exportation of hazardous wastes for recovery in overseas, if only the local recovery facilities do not have capability and capacity to carry out such activity.

ILLEGAL IMPORT OF E-WASTES IN PORT KLANG FROM GERMANY



ISSUES & CHALLENGES

Illegal Dumping:

- ✓ Indiscriminate dumping of SW
- ✓ Lack of evidence, complexity of scheduled wastes
- ✓ The nature of crime, require expert investigation/forensic

Clean up → Very costly

Current Disposal Facilities → require BAT, BEP

Compliance to the EQ(SW) Regulations 2005

Technology of SW Treatment → expensive


Health and Safety Issue

WAY FORWARD

❑ Strategic Plan on SW Management, 2015 (8 Strategies & 25 Pillars)

✓ Minimize and Optimize

TRANSFORMATION

✓ Cradle to Grave  Cradle to Cradle

✓ Encourage Co-Processing and Recovery Technology

✓ Promoting 4R (26% to 70% recovered)

✓ “SW To Energy Plant”, to recover energy from waste, minimize operational cost and improve the environment

✓ Utilize Best Available Techniques (BAT), BMP, BEP

WAY FORWARD

Continuous Reviewing of Legislation:

- ✓ EQA 1974 (become mandatory for GSR/EMT)
- ✓ ER(SW) Regulation 2005
- ✓ ER (Soil Contamination) Regulation 20xx
- ✓ ER (Household e-Waste) Regulation, 20xx
- ✓ ER (Collection Fee/SES) (Waste Generator), Regulation, 20xx

Environmental Forensic Investigation

SES/ Fee Charge based on quantity produced

Financial Incentives encourage waste minimization and on-site treatment



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