Environmental Requirements:

A Guide For Investors

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INTRODUCTION

In the promotion of environmentally sound and sustainable development, the Government of Malaysia has established the necessary legal and institutional arrangements such that environmental factors are considered at the early stages of project planning. With reference to the licensing requirements for establishment of business/industry in the country **(Appendix A)**, environmental requirements and assessment constitute the second level of approval that need to be obtained after a business or industry has been registered. Environmental assessment is an important technique for ensuring that the likely impacts on the environment of proposed development are fully understood and taken into account before such development is allowed to go ahead. In Malaysia, Environmental Impact Assessment (EIA) is required for activities prescribed under the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987. Those industrial activities that are not subject to the mandatory EIA requirements are nevertheless subject to various regulations under the Environmental Quality Act, 1974 (EQA).

The set of guidelines, which is intended primarily for investors or project proponents and their consultants, sets out Malaysia's environmental policy objectives, and explains the environmental requirements for planning of industrial development projects in Malaysia. It also provides information on the relevant legislation and describes procedures for obtaining appropriate approvals from the Department of Environment, the regulatory agency which administers the EQA of 1974.

NATIONAL POLICY ON THE ENVIRONMENT

The National Policy on the Environment which integrates the three elements of sustainable development: economic, social and cultural development and environmental conservation was formulated and approved in 2002. The Policy aims at continued economic, social and cultural progress and enhancement of the quality of life of Malaysians through environmentally sound and sustainable development. It is based in **eight (8)** inter-related and mutually supporting principles set to harmonise economic development goals with environmental imperatives:

- Stewardship of the Environment
- Conservation of tha Nature's Vitality and Diversity
- Continuous Improvement in the Quality of the Environment

- Sustainable Use of Natural Resource
- Integrated Decision-making
- Role of the Private Sector
- Commitment and Accountability
- Active Participation in the International Community

In keeping abreast with the country's rapid economic development and to meet with the nation's aspiration for an improved quality of life, the National Policy on the Environment serves as an important guide to all stakeholders to ensure that the environment is clean, safe, healthy and productive.

ENVIRONMENTAL QUALITY ACT, 1974

The legislation that is related to the prevention, abatement, control of pollution and enhancement of the environment in Malaysia is the Environmental Quality Act, 1974. The Act restricts the discharge of wastes into the environment in contravention of the **acceptable conditions**. To date **35 sets** of Regulations and Orders as per **Appendix B** have been introduced and enforced. The Director General of Environmental Quality has been appointed by the Minister to administer this Act and any regulations and orders made thereunder.

ENVIRONMENTAL REQUIREMENTS

Under the Environmental Quality Act, 1974 and the Regulations thereunder, industrial activities are required to obtain the following approvals from the Director General of Environmental Quality prior to project implementation:-

- Environmental Impact Assessment reports (for prescribed activities);
- Site suitability evaluation (for non-prescribed activities);
- Written permission to construct;
- Written approval for installation of incinerator, fuel burning equipment and chimney; and
- License to use and occupy prescribed premises and prescribed conveyances.

Figure 1 outlines the application procedure for environmental requirements in Malaysia.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR PRESCRIBED ACTIVITIES

Every industrial proposal should be examined by the investor to see whether an environmental impact assessment (EIA) needs to be conducted. A prospective investor should therefore first of all determine whether or not a proposed venture is categorised as 'prescribed activity' as stipulated in the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987, **(Appendix C).**

If the proposed venture is categorised as a 'prescribed activity' an EIA study needs to be conducted and report submitted to the Director General of Environmental Quality for approval. The project is not allowed to proceed unless approval of the EIA report has been granted. Due to the sensitivity of the project and polluting potential from the construction and/or operations, some of the prescribed activities have been required to go through the Detailed EIA Procedures which involves public participation. Those activities are as in **Appendix C1**.

For an industrial project, the EIA generally would assist in determining site suitability as well as the necessary environmental control and mitigation measures. The objectives of EIA are summarised as follows:

- To examine and select the best from the project options available;
- To identify, predict and assess significant residual environmental impacts;
- To recommend and incorporate into the project plan, appropriate abatement and mitigating measures; and
- To identify the environmental costs and benefits of the project to the community.

A Handbook of EIA Guidelines (edited) 2007 has been prepared to assist project proponents understand the objectives of EIA, procedures for carrying out EIA studies and guidelines on preparation of EIA reports. The handbook can be obtained from the headquarters of the Department of Environment, Putrajaya and the State Offices of the Department of Environment. **A booklet on EIA Procedure and Requirement in Malaysia,** for quick reference is also available at all DOE offices, including at the office of the representative of the Department of Environment at the Malaysian Industrial Development Authority (MIDA). Addresses and telephone numbers of these offices are as per **Appendix D.**

SITE SUITABILITY EVALUATION FOR NON-PRESCRIBED ACTIVITIES

One of the most important procedures which have an immediate bearing on the period of processing and condition of approval on environmental ground is the SITE SUITABILITY for the proposed project. Irrespective of whether the proposed industrial activity is going to be sited within an industrial estate or otherwise, it should be developed and managed with environmentally sound control measures. Therefore, all potential industrial sites for the establishment of new industrial activities which are NOT subject to EIA, particularly the Small and Medium Scale Industries (SMIs), are advised to refer to the Department of Environment for consideration and advice on site suitability.

In considering the suitability, the site is evaluated in terms of its compatibility with respect to the gazetted structure/local plans, surrounding landuse, provision of set-backs or buffer zones, the capacity of the area to receive additional pollution load, and waste disposal requirements.

Details on the appropriate buffer zone with respect to a specific category of industry can be obtained from 'Guidelines for the Siting and Zoning of Industries' prepared by DOE. An outline of the guidelines is given in **Appendix E.**

For potentially hazardous* type of industries, the project proponent may be required to submit a RISK ASSESSMENT to the Department of Environment as part of the site consideration.

* Hazardous Industry: Any industry or installation which has the potential for causing injury threat to health, death and damage to property or the environment

The Term of Reference for the preparation of an EIA report for proposed industrial projects located within gazetted and EIA approved industrial estates is as in **Appendix E1**. The scopes to be studied in the EIA report are not restricted to the information in this Appendix. The EIA report has to be more specific in terms of the proposed site and project.

WRITTEN PERMISSION

Any person intending to carry out activities as listed below must obtain prior written permission from the Director-General of Environmental Quality:

i. Construction of any building or carrying out of any work that may result in a new source of effluent or discharge as stipulated under Regulation 4, Environmental Quality (Sewage and Industrial Effluents) Regulations 1979;

ii. Construction on any land or any building; or carrying out work that would cause the land or building to become prescribed premises (crude palm oil mills, raw natural rubber processing mills, and treatment and disposal facilities of scheduled wastes), as stipulated under Section 19 of the Environmental Quality Act, 1974; and

iii. A factory which is categorised as a prescribed premise namely :
   (a) The Crude Palm Oil Mill;
   (b) The Raw Natural Rubber Processing Mill; and
   (c) The Treatment and Disposal Facilities of Scheduled Waste.

* Such application has to be accompanied by a prescribed fee.

WRITTEN APPROVAL

Applicants intending to carry out activities as listed below shall obtain prior written approval from the Director-General of Environment Quality:

i. New installation near dwelling area as detailed out in Regulation 4 and First Schedule of the Environmental Quality (Clean Air) Regulations 1978.

ii. Any erection (including incinerators), installation, resiting or alteration of fuel burning equipment that is rated to consume pulverised fuel or solid fuel at 30 kg or more per hour, or liquid or gaseous fuel at 15 kg or more per hour as stipulated in Regulations 36 and 38 of the Environmental Quality (Clean Air) Regulations 1978, **(Appendix F).**

iii. Any erection, installation, resiting, or alteration of any chimney from or through which air impurities may be emitted or discharged, respectively.

* No fee imposed for the application of written approval.

LICENCE TO OCCUPY PRESCRIBED PREMISES AND PRESCRIBED CONVEYANCES

A licence is required to occupy and operate prescribed premises. Application shall be made after obtaining written permission and written approval. Licensing fee will be charged for every licence issued for palm oil, raw natural rubber processing mills and facilities for treatment and disposal of schedule waste and prescribed conveyances.

A licence is required to occupy and operate prescribed premises, namely as below:

(a) crude palm oil mills,

(b) raw natural rubber processing mills, and

(c) treatment and disposal facilities of scheduled wastes

Starting from 15 August 2005, licence is required to use prescribed conveyances as stipulated in the Environmental Quality (Prescribed Conveyance) (Scheduled Wastes) Order 2005. Conveyance which is categorized as prescribed conveyance namely:

Any vehicle or ship of any description which is

(a) propelled by a mechanism contained within itself;

(b) constructed or adapted to be used on land or water; and

(c) used for the movement, transfer, placement or deposit of scheduled wastes.

Applications for the licence shall be made after obtaining written permission and/ or written approval.

GASEOUS EMISSION AND EFFLUENT STANDARDS

Industries are required to comply with both air emission and effluent discharge standards as stipulated in **Appendices G** and **H** respectively. These standards are regarded as acceptable conditions or emissions and discharge allowed in Malaysia. **Appendix I**, gives the Recommended Malaysian Air Quality Guidelines (Ambient Standards).

CONTROL USE OF OZONE DEPLETING SUBSTANCES (ODS)

ODS are categorised as environmental hazardous substance under the Environmental Quality Act, 1974 (Amendment) 1996. These substances are listed as per **Appendix J**. New investments relating to the use of these substances are prohibited. Existing industries are encouraged to develop and use substitutes and to change their ODS dependent processes as soon as possible.

SCHEDULED WASTES MANAGEMENT

Malaysia has developed a comprehensive set of legal provisions related to the management of toxic and hazardous wastes. The regulation was based on the cradle to grave principle.

A facility which generates, stores, transports, treats or disposes scheduled waste is subject to the following regulations:

- Environmental Quality (Scheduled Wastes) Regulations 2005 (Amendment) 2007
- Environmental Quality (Prescribed Conveyance) (Scheduled Wastes) Order 2005;
- Environmental Quality (Prescribed Premises) (Scheduled Wastes Treatment and Disposal Facilities) (Amendment) Order 2006;
- Environmental Quality (Prescribed Premises) (Scheduled Waste Treatment and Disposal Facilities) (Amendment) Regulations 2006;
- Customs (Prohibition of Export) Order (Amendment)(No. 2) 1993, and;
- Customs (Prohibition of Import) Order (Amendment)(No. 2) 1993.

A summary of the environmental requirements on scheduled wastes is given in **Appendix K** and the list of scheduled wastes is as per **Appendix L.**

INCENTIVES FOR THE STORAGE, TREATMENT AND DISPOSAL OR TOXIC AND HAZARDOUS WASTES

To encourage proper industrial waste management, the following incentives are currently available:-

- Pioneer Status incentive for 5 years to companies which are principally engaged in an integrated operation for the storage, treatment and disposal of toxic and hazardous wastes;

- As a further incentive for both the above categories of companies, the Government also extends the current import duty and sales tax exemption scheme for machinery, equipment, raw materials and components.

All facilities for storage, treatment and disposal of toxic and hazardous wastes must be approved by the Department of Environment before the application is made for the incentives.

INCENTIVES FOR THE INSTALLATION OF POLLUTION CONTROL EQUIPMENT

Under Income Tax Act 1967, Income Tax (Qualifying Plant Allowances) (Control Equipment) Rules 1998, the Government has provided special capital allowance incentive for the Companies which install pollution control equipment in the setting up of the plants. This allowance is at initial rate 40% and an annual rate of 20% for the qualifying plants stipulate under Schedule 3 of Income Tax Act 1997.

CONCLUSION

Investors are advised to consult the Department of Environment for further clarification of the requirements. They may do so by contacting the officers in the DOE Headquarters, DOE State Offices and/ or to the DOE representative at MIDA. A checklist and a summary of approvals issued by the Department of Environment are given in **Appendices M** and **N** respectively. Investors are advised to provide complete information to avoid any delay in processing.

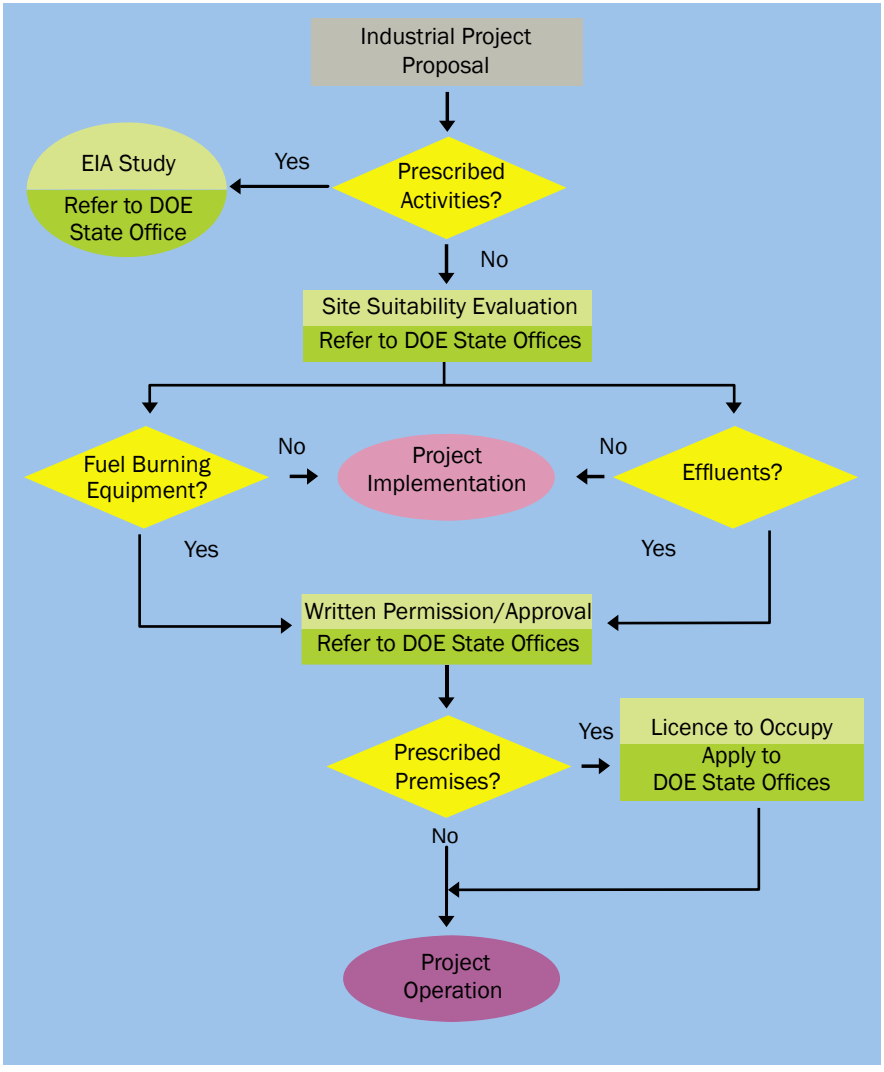
Investors are also encouraged to give attention to some of the following aspects of pollution control during the early planning stage of their projects:

- look into pollution control measures as early as at the pre-feasibility study stage;
- find possible modifications in the process line that can minimise waste generation;
- pollution prevention to be viewed as important as production process;
- engage in cleaner production; and
- consider recycling option as far as possible.

In conclusion, investors should be aware that environmental issues are now a growing concern all over the world. Today, the public demands a better quality of life and environment. Therefore, investors should not only work towards complying with the law but also to fulfill their public obligations.

Figure 1

APPLICATION PROCEDURE FOR ENVIRONMENTAL REQUIREMENTS IN MALAYSIA



STEP 1

Screening for Prescribed Activities

STEP 2

Activities subject to air and water pollution control

STEP 3

Licence to occupy

- Crude Palm Oil Mills
- Raw Material Rubber Factories
- Scheduled Wastes Facilities
- Prescribed Conveyance


APPENDICES

GENERAL LICENSING REQUIREMENTS FOR BUSINESS/INDUSTRY

Activity	Type of Licence/Approval	Approving Authority
I. REGISTRATION OF :		
(a) Company or (b) Business	(a) Certification of Incorporation of Company (b) Certificate of Registration of Business	Registry of Companies Registration of Business Office
II. EVALUATION/STUDY ON:		
(a) Environmental Impact	(a) Approval on Environmental Impact Assessment Report [for 19 categories of prescribed activities only as stipulated in the Environmental Quality) (Prescribed Activities) (Environmental Impact Assessment) Order 1987]	Department of Environment
(b) Site Suitability	(b) Approval on Site Suitability Evaluation for non-prescribed activities.	Department of Environment
III. PRELIMINARY LICENSING	Manufacturing Licence (for manufacturing companies with shareholders' funds of RM2.5 million and above or engaging 75 or more fulltime employees)	Ministry of International Trade and Industry (Through MIDA)

Activity	Type of Licence/Approval	Approving Authority
IV. PURCHASE OF LAND FOR INDUSTRIAL PURPOSE:		
(a) Industrial Land	Land title	Respective State Government/ State Economic Development Corporation (SEDC)/Regional Development Authority
(b) Non-industrial land	1. Approval for land-use conversion 2. Approval for layout plan	Respective State Government District Land Office
V. BUILDING		
(a) Pre-Construction: i) Pollution Control	Written Permission To Construct Premises That May Discharge Effluents.	Department of Environment
ii) Customs Facilities -Licensed Manufacturing Warehouse	1. Licensed Manufacturing Warehouse Licence. 2. Excise Manufacturing Licence	Royal Customs and Excise Department
iii) Building Plans	Approval for Building Plans (other plans to be submitted with application: - Key Plan; - Layout Plan; - Elevation Plan for front, back and side view of building; - Details on open space; - Plan on septic tanks/ sewerage; - Plan on water-pipe installation; - Plan on land works and infrastructure.	Respective Local Authorities

Activity	Type of Licence/Approval	Approving Authority
(b) During Construction:		
(i) Construction Works	1. Notice to Start Work and Date of Completion.	Respective Local Authorities
	2. Temporary Permits for Construction Works such as: - Construction of a Contractor's workshed and store-shed; - Construction of roadside scaffolding; - Construction of work platforms/ frame work or any structures; - Construction of fencing along the road; and - Depositing building materials by the road	
	3. Permit to remove sand/stone Materials	Respective District Land Office
ii) Temporary Supply of Utilities	Approval for Temporary Supply of Utilities to the Project Site	Tenaga Nasional Berhad Water Supply Department
(c) On Completion of Construction	1. Letters of Certification from respective technical departments	Fire Services Department Tenaga Nasional Berhad Telekom Malaysia Berhad Water Supply Department
	2. Certificate of Fitness	Respective Local Authorities

Activity	Type of Licence/Approval	Approving Authority
(d) Premises for Operating Trade/Business/ Industries	1. Premises Licence for trade/ industry/ business concerned. 2. Approval for Sign Boards/ Advertisement Sign	Respective Local Authorities Department of Occupational Safety and Health
(e) Factory Inspection	Factory Inspection Report	
VI. UTILITIES		
(a) Electricity	1. Approval for electricity supply.	Tenaga Nasional Berhad
	2. Approval for construction of electricity sub-station.	Tenaga Nasional Berhad
	3. Approval Install Standby Generator.	Department of Electricity Supply
	4. Licence to Generate, Transmit or Distribute Energy From any Installation.	Department of Electricity Supply
(b) Water Supply	Approval for water supply	Waterworks Department
(c) Telecommunication	Approval for telephone lines	Telekom Malaysia Berhad
VII. MANPOWER		
(a) Employment of Workers	1. Permit allowing employers to keep Employees' Register in the Company's Headquarters	Labour Department
	2. Registration of workers with the Employees Provident Fund (EPF)	Employees Provident Fund

Activity	Type of Licence/Approval	Approving Authority
	3. Registration of employees with the Social Security Organisation (for employers employing one (1) worker or more earning wages RM2,000 per month or less)	Social Security Organisation
(b) Limit of Working Hours	1. Permit to exceed the limit of working overtime Hours	Labour Department
	2. Permit to vary hours of work	Labour Department
	3. Permit to allow women working at night	Labour Department
(c) Industrial Hygiene	1. Approval of competent person for: - Noise exposure; - Mineral dust; - Asbestos process; - Lead.	Department of Occupational Safety and Health
	2. Approval of Hearing Protectors.	-as above-
	3. Approval of Breathing Apparatus.	-as above-
	4. Approval of Sound Level Meters	-as above-
	5. Approval of Audiometric Silent Booth	-as above-

Activity	Type of Licence/Approval	Approving Authority
(d) Worker's Competency	1. Certificate of Competency (first grade and second grade dredge master)	Department of Occupational Safety and Health
	2. Registration of Competent Personel (e.g. chargement, engineer supervising an installation, wiremen).	
(e) Expatriate Posts	1. Approval for expatriate posts	MIDA
	2. Valid National passport/other recognised travel documents.	-
	3. Visa requirements	Nearest Malaysia Mission abroad Immigration Department
	4. Employment pass	
(f) Foreign Workers	1. Approval to employ foreign workers in certain sectors.	Ministry of Human Resources
	2. Valid national passport/other recognised travel documents valid for entry into Malaysia	-
	3. Visa Requirement	Nearest Malaysian Mission abroad Immigration Department
	4. Employment Pass/Permit	
VIII. MACHINERY AND EQUIPMENT:		
(a) Importation/ Use of second-hand machinery	Approval to import used plant and machinery (for projects under the Industrial Coordination Act 1975)	MIDA

Activity	Type of Licence/Approval	Approving Authority
(b) Certificated Machinery	Design Approval of Certificated Machinery (i.e. steam boilers, unfired pressure vessels and hoisting machines)	Department of Occupational Safety and Health
(c) Commissioning and Operation of Certificated Machinery	Certificate of Fitness for Certificated Machinery	- as above -
(d) Electrical Equipment	1. Approvals for import or manufacture of electrical Appliance.	Department of Electricity Supply
	2. Registration of switchboard manufacturers	- as above -
IX. POLLUTION CONTROL	1. Written permission to increase production capacity of factory.	Department of Environment
	2. Written approval for installation of incinerator, fuel burning equipment and chimney.	- as above -
	3. Licence to occupy and operate prescribed premises.	- as above -
X. TRANSPORTATION BY : (a) Land	1. Licence for commercial vehicles (such as factory buses, lorries etc.)	Commercial Vehicles Licensing Board
	2. Driving licence for goods vehicle.	Road Transport Department
	3. Approval for locked van.	Royal Customs and Excise Department

Activity	Type of Licence/Approval	Approving Authority
(b) Sea	1. Notification of port entry and port clearance	Respective Port Authority, Royal Customs and Exercise Department
	2. Port Conveyance permit	-as above-
	3. Certificate to carry dangerous goods	-as above-
	4. Approval for private jetty	Royal Customs and Exercise Department
(c) Air	Declaration for transportation of dangerous goods.	Civil Aviation Department
XI. IMPORT AND EXPORT		
(a) Import of Prohibited Goods	1. Import licence for goods specified in Customs (Prohibition of Imports) Order 1988	Ministry of International Trade and Industry and other Ministries, Departments or Statutory Bodies appointed by the Director General of Customs
	2. Import licence for liquor and cigarettes	Royal Customs and Excise Department
(b) Export of Prohibited Goods	1. Export Licence for goods specified in Customs (Prohibition of Exports) Order 1988	Ministry of International Trade and Industry and other Ministries, Departments or Statutory Bodies appointed by the Director General of Customs

Activity	Type of Licence/Approval	Approving Authority
	2. Export Approval under GSP System	Ministry of International Trade and Industry
	3. Certificate of Origin	- as above -
XII. LOCAL MARKET	Sales Tax Licence	Royal Customs and Excise Department
XIII. INTELLECTUAL/ INDUSTRIAL PROPERTY AND CONSUMER PROTECTION		
(a) Trade Mark	Trade Mark Certificate	Ministry of Domestic Trade and Consumer Affairs
(b) Patent	Certificate for Grant of a Patent	Ministry of Domestic Trade and Consumer Affairs
(c) Copyright	Copyright Approval	- as above -
(d) Weights and Measures	Licence to Manufacture, Repair and Sell Instruments for Weighing & Measuring	- as above -
(e) Product Quality and Standards	1. SIRIM Product Certification Scheme	SIRIM
	2. Quality System Certification Scheme	SIRIM

Activity	Type of Licence/Approval	Approving Authority
XIV. BANKING AND FINANCE		
(1) Local Payment in Foreign Currency Between Residents	Approval letter from the Controller of Foreign Exchange	Balance of Payments Department Central Bank of Malaysia
(2) Borrowing		
(a) Borrowing from non-residents (inclusive of guarantees):	- as above -	- as above -
(i) In foreign currency exceeding RM 1 million in aggregate		
(ii) In Ringgit		
(b) Local borrowing	- as above -	- as above -
(i) Obtained by non-resident controlled companies exceeding RM 10 million in aggregate		
(ii) Obtained by non-resident and non-resident controlled companies to finance the purchase or immovable properties in Malaysia.		
(iii) Obtained by non-residents exceeding RM100,000		
(c) Local borrowing in foreign currency exceeding RM 1 million	- as above -	- as above -

Activity	Type of Licence/Approval	Approving Authority
(3) Opening of Bank Account		
(a) Overseas account by resident	Approval letter from the Controller of Foreign Exchange	Balance of Payment DepartmentCentral Bank of Malaysia
(b) Foreign currency account maintained by residents in Malaysia	- as above -	- as above -
(4) Flow of Funds		
(a) Export proceeds	- as above -	- as above -
(i) exceeding 6 months from the date of export		
(ii) to offset export proceeds against import payments or loan repayments		
(iii) will not receive export proceeds		
(b) Investment abroad and loan to non-residents if the resident concerned has obtained local borrowing	- as above -	- as above -

Source: 'Dealing with the Malaysian Civil Service' Second Edition 1994 (Revised) MAMPU

LIST OF REGULATIONS AND ORDERS ENFORCED UNDER THE ENVIRONMENTAL QUALITY ACT, 1974 BY THE DEPARTMENT OF ENVIRONMENT

NO.	REGULATIONS/ORDER	P.U.(A)	EFFECTIVE DATE OF ENFORCEMENT
1.	Environmental Quality (Licensing) Regulations 1977	198	1st October, 1977
2.	Environmental Quality (Prescribed Premises) (Crude Palm Oil) Regulations 1977 (Amendment) 1982	324	4th November, 1977
3.	Environmental Quality (Prescribed Premises) (Crude Palm Oil) Order 1997	199	1st July, 1978
4.	Environmental Quality (Clean Air) Regulations 1978	280	1st October, 1978
5.	Environmental Quality (Compounding of Offences) Regulations 1978	281	1st October, 1978
6.	Environmental Quality (Prescribed Premises)(Raw Natural Rubber) Regulations 1978 (Amendment) 1980	338	1st December, 1978
7.	Environmental Quality (Sewage and Industrial Effluents) Regulations 1979	12	1st January, 1979
8.	Environmental Quality (Prescribed Premises) (Raw Natural Rubber)(Amendment) Order 1978	337	1st April, 1979
9.	Environmental Quality (Control of Lead Concentration in Motor Gasoline) Regulations 1985	296	11th July, 1987
10.	Environmental Quality (Motor Vehicles Noise) Regulations 1987	244	16th July, 1987
11.	Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987	362	1st April, 1988
12.	Environmental Quality (Delegation of Powers on Marine Pollution Control) Order 1992	276	23rd September, 1993
13.	Environmental Quality (Prohibition on the use of Chlorofluoro-carbons and other Gases as Propellants and Blowing Agents) Order 1993	434	25th October, 1993

NO.	REGULATIONS/ORDER	P.U.(A)	EFFECTIVE DATE OF ENFORCEMENT
14.	Environmental Quality (Delegation of Powers on Marine Pollution Control)(Amendment) Order 1994	536	29th December, 1994
15.	Environmental Quality (Delegation of Powers on Marine Pollution) Order 1994	537	29th December, 1994
16.	Environmental Quality (Prohibition on the Use of Controlled Substance in Soap, Synthetic Detergent and other Cleaning Agents) Order 1995	115	15th April, 1995
17.	Environmental Quality (Control of Emission from Diesel Engines) Regulations 1996	429	1st September, 1996
18.	Environmental Quality (Control of Emission from Petrol Engines) Regulations 1996	543	1st November, 1996
19.	Environmental Quality (Refrigerant Management) Regulations 1999	451	1st Jan, 2000
20.	Environmental Quality (Halon Management) Regulations 1999	452	1st Jan, 2000
21.	Environmental Quality (Prescribed Activities)(Open Burning) Order 2000	308	21st August, 2000
22.	Environmental Quality (Clean air)(Amendment) Regulations 2000	309	21st August, 2000
23.	Environmental Quality (Compounding of Offences)(Open Burning) Rules 2000	310	21st August, 2000
24.	Environmental Quality (Delegation Of Powers)(Investigation of Open Burning) Order 2000	311	21st August, 2000
25.	Environmental Quality (Delegation Of Powers)(Investigation of Open Burning) Order 2000	311	21st August, 2000
26.	Environmental Quality (Delegation of Powers) (Perbadanan Putrajaya) Order 2002	233/02	-
27.	Environmental Quality (Appeal Board) Regulations 2003	115/03	21 April 2003
28.	Environmental Quality (Declared Activities) (Open Burning) Order 2003	460/03	1 January 2004

NO.	REGULATIONS/ORDER	P.U.(A)	EFFECTIVE DATE OF ENFORCEMENT
29.	Environmental Quality (Control of Emissions From Motorcycles) Regulations 2003	464/03	1 January 2004
30.	Environmental Quality (Dioxin and Furan) Regulations 2004	104/04	1 May 2004
31.	Environmental Quality (Prescribed Conveyance) (Scheduled Wastes) Order 2005	293/ 2005	15 August 2005
32.	Environmental Quality (Scheduled Wastes) Regulations 2005 (Amendment) 2007	158/ 2007	15 August 2005 12 April 2007
33.	Environmental Quality (Delegation of Powers) Order 2005	365/ 2005	-
34.	Environmental Quality (Prescribed Premises) (Scheduled Wastes Treatment and Disposal Facilities) (Amendment) Order 2006	252	1st July, 2006
35.	Environmental Quality (Prescribed Premises) (Scheduled Wastes Treatment and Disposal Facilities) (Amendment) Regulations 2006	253	1st July, 2006

LIST OF PRESCRIBED ACTIVITIES
[EXTRACT FROM THE ENVIRONMENTAL QUALITY (PRESCRIBED ACTIVITIES) (ENVIRONMENTAL IMPACT ASSESSMENT) ORDER 1987]

1. Agriculture

(a) Land development schemes covering an area of 500 hectares or more to bring forest land into agriculture production.
(b) Agriculture programmes necessitating the resettlement of 100 families or more.
(c) Development of agricultural estates covering an area of 500 hectares or more involving changes in type of agricultural use.

2. Airport

(a) Construction of airports (having an airstrip of 2,500 meters or longer).
(b) Airstrip development in state and national parks.

3. Drainage And Irrigation

(a) Construction of dams and man-made lakes and artificial enlargement of lakes with surface areas of 200 hectares or more.
(b) Drainage of wetland, wild-life habitat or of virgin forest covering an area of 100 hectares or more.
(c) Irrigation schemes covering an area of 5,000 hectares or more.

4. Land Reclamation

Coastal reclamation involving an area of 50 hectares or more.

5. Fisheries

(a) Construction of fishing harbours.
(b) Harbour expansion involving an increase of 50 per cent or more in fish landing capacity per annum.
(c) Land based aquaculture projects accompanied by clearing of mangrove swamp forests covering an area of 50 hectares or more.

6. Forestry

(a) Conversion of hill forest land to other land use covering an area of 50 hectares or more.

(b) Logging or conversion of forest land to other land use within the catchments area of reservoirs used for municipal water supply, irrigation or hydropower generation or in areas adjacent to state and national parks and national marine parks.

(c) Logging covering an area of 500 hectares or more.

(d) Conversion of mangrove swamps for industrial, housing or agricultural use covering an area of 50 hectares or more.

(e) Clearing of mangrove swamps in islands adjacent to national marine parks.

7. Housing

Housing development covering an area of 50 hectares or more.

8. Industry

(a)	Chemical	-	Where production capacity of each product or of combined products is greater than 100 tonnes/day.
(b)	Petrochemicals	-	All sizes.
(c)	Non-ferrous	-	Primary smelting: Aluminium - all sizes Copper - all sizes Others - producing 50 tonnes/day and above of product.
(d)	Non-Metallic	-	Cement - for clinker through put of 30 tonnes/hour and above.
		-	Lime - 100 tonnes/day and above burnt lime rotary kiln or 50 tonnes/day and above vertical kiln.
(e)	Iron and Steel	-	Require iron ore as raw materials for production greater than 100 tonnes/day; or Using scrap iron as raw materials for production greater than 200 tonnes/day
(f)	Shipyards	-	Dead Weight Tonnage greater than 5000 tonnes.
(g)	Pulp and Paper Industry	-	Production capacity greater than 50 tonnes/day.

9. Infrastructure

(a) Construction of hospitals with out fall into beachfronts used for recreational purposes.
(b) Industrial estate development for medium and heavy industries covering an area of 50 hectares or more.
(c) Construction of expressways.
(d) Construction of national highways.
(e) Construction of new townships.

10. Ports

(a) Construction of ports
(b) Port expansion involving an increase of 50 per cent or more in handling capacity per annum.

11. Mining

(a) Mining of minerals in new areas where the mining lease covers a total area in excess of 250 hectares.
(b) Ore processing, including concentrating for aluminium, copper, gold or tantalum.
(c) Sand dredging involving an area of 50 hectares or more.

12. Petroleum

(a) Oil and gas fields development.
(b) Construction of off-shore and on-shore pipelines in excess of 50 kilometers in length.
(c) Construction of oil and gas separation, processing, handling, and storage facilities.
(d) Construction of oil refineries.
(e) Construction of product depots for the storage of petrol, gas or diesel (excluding service stations) which are located within 3 kilometers of any commercial, industrial or residential areas and which have a combined storage capacity of 60,000 barrels or more.

13. Power Generation And Transmission

(a) Construction of steam generated power stations burning fossil fuels and having a capacity of more than 10 megawatts.

b) Dams and hydroelectric power schemes with either or both of the following:
   (i) dams over 15 meters high and ancillary structures covering a total area in excess of 40 hectares;
   (ii) reservoirs with a surface area in excess of 400 hectares.

(c) Construction of combined cycle power stations.

(d) Construction of nuclear-fueled power stations.

14. Quarries

Proposed quarrying of aggregate, limestone, silica quartzite, sandstone, marble and decorative building stone within 3 kilometers of any existing residential, commercial or industrial areas, or any area for which a licence, permit or approval has been granted for residential, commercial or industrial development.

15. Railways

(a) Construction of new routes.

(b) Construction of branch lines.

16. Transportation

Construction of Mass Rapid Transport projects.

17. Resort And Recreational Development

(a) Construction of coastal resort facilities or hotels with more than 80 rooms.

(b) Hill station resort or hotel development covering an area of 50 hectares or more.

(c) Development of tourist or recreational facilities in national parks.

(d) Development of tourist or recreational facilities or islands in surrounding waters which are gazetted as national marine parks.

18. Waste Treatment And Disposal

(a) Toxic and Hazardous Waste
   (i) Construction of incineration plant (on-site)
   (ii) Construction of recovery plant (off-site)
   (iii) Construction of wastewater treatment plant (off-site)

(iv) Construction of secure landfill facility
(v) Construction of storage facility (off-site)

(b) Municipal Solid Waste
(i) Construction of incineration plant
(ii) Construction of composting plant
(iii) Construction of recovery/recycling plant
(iv) Construction of municipal solid waste landfill facility

(c) Municipal Sewage
(i) Construction of wastewater treatment plant
(ii) Construction of marine out fall.

19. Water Supply

(a) Construction of dams, impounding reservoirs with a surface area of 200 hectares or more.

LIST OF PRESCRIBED ACTIVITIES WHICH REQUIRE DETAILED EIA PROCEDURES

1. Iron and steel industry.

2. Pulp and paper mills.

3. Cement plant.

4. Construction of coal fired power plant.

5. Construction of dams and hydroelectric power schemes.

6. Land reclamation.

7. Incineration plant (scheduled waste & solid waste).

8. Sanitary landfill.

9. Project involving land clearing where 50% of the area or more having slopes exceeding 25 degrees (except quarry).

10. Logging involving an area exceeding 500 hectares.

11. Development of tourist or recreational facilities on islands in surrounding waters which are gazetted as national marine parks.

12. Construction of recovery plant (off-site) for lead-acid battery wastes.

13. Scheduled wastes recovery or treatment facility generating significant amount of wastewater which is located upstream of public water supply intake .

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Guidelines for the Siting and Zoning Of Industries

Table 1: TABLE OF SUMMARY ON THE SITING AND ZONING OF INDUSTRIES

INDUSTRIES	DESCRIPTIONS AND STANDARD REQUIREMENTS	BUFFER ZONE
Light Type A	• Industries shall not generate excessive noise. • Industries shall not accommodate stacks or chimneys thus producing no gaseous emissions. • Industries shall not discharge industrial effluent apart from sewage and kitchen waters and non-toxic solid wastes. • Industries shall not use any raw materials which are toxic and hazardous and therefore will not produce any scheduled wastes. • Industries shall have height restrictions determined by the Local Authority. • Industries shall use electricity and gas as fuels. • Industries shall not use any radioactive material and scheduled wastes. Note: Light industries (Type A) shall not produce any industrial emissions and significant discharges.	30 m
Light B	• Industries shall not generate excessive noise. • Industries shall not accommodate stacks or chimneys thus producing no gaseous emissions. • Industries shall not use any raw materials or produce any scheduled wastes. • Industries shall have height restrictions determined by the Local Authority. • Industries shall produce industrial effluent that can be treated on site before being discharged to meet Standard A or B of the Environmental Quality (Sewage and Industrial Effluent) Regulation 1979 depending on the site. • Compatibility in industrial mixing, eg. Between food based industries and leather-based industries. • Industries shall not use any radioactive materials or scheduled wastes. Note: Industrial Effluent discharge and gaseous emissions shall meet the relevant Environmental Quality Regulations as stipulated in the Environmental Quality Act, 1974.	50 m

INDUSTRIES	DESCRIPTIONS AND STANDARD REQUIREMENTS	BUFFER ZONE
Medium	• These industries could generate significant noise from machineries, generators etc but which could be controlled to meet the level not exceeding 65dB (A) Leq at the factory boundary, and not exceeding 55 and 45 dB(A) Leq at the residential/buffer zone boundary during day and night time respectively. • Industries could emit some gaseous emission but which can be controlled to comply with the Environmental Quality (Clean Air) Regulation 1978. • The industries could produce some industrial effluent that can be treated on site before being discharged to meet the Environmental Quality (Sewage and Industrial Effluent) Regulation 1979, standard A or B depending on the site. • These industries could use toxic and hazardous raw materials in its productions. • The industries could produce scheduled wastes but which can be treated on site to comply with the Environmental Quality (Scheduled Wastes) Regulation (Amendment) 2007 or disposed off from their premises. • These industries could produce fumes and odors that can possibly affect the workers health and the neighbouring plant, but for which design solutions are available for prevention and shall comply with the Environment Quality (Clean Air) Regulation 1978. • The stack height shall conform to the production capacity of the specific plant to be based on air quality modeling and simulation with the DOE approval. • The industries shall be located in designated industrial estates or zones with good compatibility within the industrial estates and zones to ensure good industrial mixing. • These industries shall not use any radioactive materials. Note: All discharges and emissions shall meet the relevant Environmental Quality Regulations stipulated in the Environmental Quality Act, 1974.	250 m

Guidelines for the Siting and Zoning Of Industries

Table 1: TABLE OF SUMMARY ON THE SITING AND ZONING OF INDUSTRIES

INDUSTRIES	DESCRIPTIONS AND STANDARD REQUIREMENTS	BUFFER ZONE
Heavy	• Heavy industries must be sited in designated industrial estates or designated industrial zones with sufficient buffer zones from residential areas, livestock farm, agricultural farms, recreation areas and tourist designated areas. A minimum distance from the fence of the industry to the nearest residential area is 500 meters, to be finalised by the EIA Report. • These industries could generate excessive noise from its operations but for which design solutions are incorporated in the form of appropriate high technologies to reduce the noise level generated to a level to meet the WHO recommended level of not greater that 65 dB(A) at the factory boundary and not exceeding 55 and 45 dB(A) at the residential/buffer zone boundary during day and night time respectively. • These industries could produce gaseous emissions at rates, volumes and concentrations that will require detailed engineering design incorporated into the operation and control mechanisms and other mitigation measures to reduce these emissions to comply with the Environmental Quality (Clean Air) Regulation 1978. • Stack heights shall be determined by detailed air quality modelling and simulations within the EIA Report. • These industries could produce industrial effluent at rates, volumes and concentrations that will require detailed engineering design incorporated into the operation and control mechanisms to meet the Environmental Quality (Sewage and Industrial Effluent) Regulation 1979 and/or to dispose such wastes to the Central Treatment Facilities. • The industries could use radioactive materials and scheduled wastes which are toxic and hazardous for which pollution control technology, design solution and mitigation measures shall meet the necessary approvals.	500 m

INDUSTRIES	DESCRIPTIONS AND STANDARD REQUIREMENTS	BUFFER ZONE
	• These industries could generate scheduled wastes which cannot be treated on-site or which exceed the levels recommended in the Environmental Quality (Scheduled Wastes) Regulation (Amendment) 2007. Thus in compliance with the above regulation the industries shall incorporate necessary technologies to reduce the scheduled wastes generation to the acceptable level or they can be disposed for treatment at a centralized scheduled wastes treatment plant, or recycled within its premise, or sold to other parties for the purpose of recycling. • Siting within an industrial estate or zones should take into consideration the compatibility in industrial mixing. • Hot water discharges shall be supported by thermal plume modelling and simulations to be clearly presented in the EIA Report. Note: All discharges and emissions shall meet the relevant Environmental Quality Regulations as stipulated in the Environmental Quality Act, 1974 and using appropriate control measures.	
Special	• Industries that by their process description and plant outputs are involved in the manufacturing of products that are generally accepted as being categorized as high technology based products. • Industries that utilize high/advanced and clean technology in their process and control mechanisms, as verified by EIA documents, and backed up by examples of parent plants or other plants operating elsewhere. • Industries that will eliminate or minimize emissions, wastewater discharges and schedule waste production. • Industries shall be located within designated special industries zones, being compatible with the neighbouring plants, which are designed to be environmentally friendly. Note: Near-zero emissions and discharges shall be achieved by incorporating clean technologies.	200 m

GUIDANCE DOCUMENT FOR THE PREPARATION OF ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REPORT

ESTABLISHMENT OF INDUSTRIES LOCATED WITHIN GAZETTED AND EIA APPROVED INDUSTRIAL SITES

INTRODUCTION

1. This document is prepared as a guidance to investors, project proponents and environmental consultants in defining the key issues and outlining the scope in the preparation of an environmental (EIA) impact assessment study for the establishment of industries located within gazetted and EIA approved industrial areas.

2. This document is also intended to complement other guidance given in the following guidelines where terms and procedures are defined:-

   a. A Handbook of Environmental Impact Assessment Guidelines;
   b. Guidelines for the Siting and Zoning of Industries;
   c. Environmental Impact Assessment Guidelines for Industrial Projects.
   d. Environmental Impact Assessment Guidelines for Risk Assessment.

CATEGORIES OF INDUSTRIAL SECTOR – PRESCRIBED ACTIVITIES

3. All industrial sector projects as listed below are prescribed activities under the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987 (EIA Order, 1987) and are subject to an EIA study:

   Activity 8. Industry

   (a) Chemical - Where production capacity of each product or of combined products is greater than 100 tonnes/day.

   (b) Petrochemicals - All sizes.

(c)	Non-ferrous	-	Primary smelting: Aluminium - all sizes Copper - all sizes Others - producing 50 tonnes/day and above of product.
(d)	Non-Metallic	-	Cement - for clinker through put of 30 tonnes/hour and above.
		-	Lime - 100 tonnes/day and above burnt lime rotary kiln or 50 atonnes/day and above vertical kiln.
(e)	Iron and Steel	-	Require iron ore as raw materials for production greater than 100 tonnes/day; or Using scrap iron as raw materials for production greater than 200 tonnes/day
(f)	Shipyards	-	Dead Weight Tonnage greater than 5000 tonnes.
(g)	Pulp and Paper Industry	-	Production capacity greater than 50 tonnes/day.

4. Due to the sensitivity of the project and polluting potential from the operations, proposal for Iron and steel mills and Pulp and paper industries have been required to go through the Detailed EIA Procedures which involves public participation.

SUMMARY OF RELEVANT ENVIRONMENTAL REGULATIONS

5. The Environmental Quality Act 1974 and its accompanying regulations call for environmental impact assessment, pollution control assessment, monitoring and self-enforcement. In addition to the requirement for an EIA for prescribed activities, various provisions under specific regulations relating to industry are as below:-

A. Written Permission

Any person intending to carry out activities as listed below must obtain prior written permission from the Director-General of Environmental Quality:

iii. Construction of any building or carrying out of any work that may result in a new source of effluent or discharge as stipulated under Regulation 4, Environmental Quality (Sewage and Industrial Effluents) Regulations 1979;

iv. Construction on any land or any building; or carrying out work that would cause the land or building to become prescribed premises (crude palm oil mills, raw natural rubber processing mills, and treatment and disposal facilities of scheduled wastes), as stipulated under Section 19 of the Environmental Quality Act, 1974.

* Such application has to be accompanied by a prescribed fee.

B. Written approval

Applicants intending to carry out activities as listed below shall obtain prior written approval from the Director-General of Environment Quality:

iv. New installation near dwelling area as detailed out in Regulation 4 and First Schedule of the Environmental Quality (Clean Air) Regulations 1978.

v. Any erection (including incinerators), installation, resiting or alteration of fuel burning equipment that is rated to consume pulverised fuel or solid fuel at 30 kg or more per hour, or liquid or gaseous fuel at 15 kg or more per hour as stipulated in Regulations 36 and 38 of the Environmental Quality (Clean Air) Regulations 1978.

vi. Any erection, installation, resiting, or alteration of any chimney from or through which air impurities may be emitted or discharged, respectively.

* No fee imposed for the application of written approval.

C. Gaseous Emmission And Effluent Standards

Industries are required to comply with both air emission and effluent discharge standards which are regarded as acceptable conditions allowed in Malaysia, as stipulated in the Environmental Quality (Clean Air) Regulations 1978 and the Environmental Quality (Sewage and Industrial Effluents) Regulations 1979. Air emission and effluent discharge standards are as per Appendix G and H respectively.

D. Control On Ozone Depleting Substances Ozone Depleting Substances (ODS) are categorised as environmentally hazardous substances under the Environmental Quality (Refrigerant Management) Regulations 1999 and the Environmental Quality (Halon Management) Regulations 1999. New investments relating to the use of these substances are prohibited.

E. Scheduled Wastes Management

A comprehensive set of legal provisions related to the management of toxic and hazardous wastes were developed based on the "cradle to grave principle"; whereby toxic and hazardous waste generators are responsible for their wastes throughout their disposal process. A facility which generates, stores, transports, treats or disposes scheduled waste is subject to the main following regulations:

i. Environmental Quality (Scheduled Wastes) Regulations 2005;

ii. Environmental Quality (Prescribed Conveyance)(Scheduled Wastes) Order 2005;

iii. Environmental Quality (Prescribed Premises) (Scheduled Wastes Treatment and Disposal Facilities) Order 1989;

iv. Environmental Quality (Prescribed Premises) (Scheduled Waste Treatment and Disposal Facilities)Regulations 1989;

v. Customs (Prohibition of Export) Order (Amendment)(No. 5) 2006, and;

vi. Customs (Prohibition of Import) Order (Amendment)(No. 5) 2006.

SITE SELECTION

8. One of the most important factors in obtaining environmental approval is the site suitability of the proposed project. Site suitability is evaluated based on the compatibility of the project with respect to the gazetted structure or local plans, surrounding land-use, provision of set-backs or buffer zones, the capacity of the area to receive additional pollution load, and waste disposal requirements.

9. Details on the appropriate buffer zone with respect to a specific category of industry can be obtained from "Guidelines for the Siting and Zoning of Industries". An outline of the guidelines is given in Appendix E. For potentially hazardous* industries, the project proponent may be required to submit a Risk Assessment to the DOE as part of the site consideration.

* Hazardous industry: Any industry or installation which has the potential for causing injury threat to health, death, and damage to property or the environment.

10. Based on the above factors, industries are advised to locate project activities within gazetted and EIA approved industrial sites. This is to ensure proper planning has been taken into consideration which leads to less environmental problems in the future, especially during operation.

PROJECT OPTIONS

11. For industrial sector, project alternatives should include appropriate alternative technologies and operating methods covering:

i. **Sources and supply of raw materials** including proximity, sustainability, transport routes and means etc.

ii. **Process options**: in respect of the technologies available in relation to "Best Available Technologies"of integrated pollution control and cost, hazard potential of alternatives (i.e. relative hazards of the raw materials and intermediates required/produced) and beneficial components such as energy recovery/waste minimization.

iii. **Treatment and disposal systems**: including options for treatment of airborne emissions, liquid effluents, solid wastes and scheduled wastes (including sale or beneficial utilization)

KEY ISSUES AND SCOPE

12. In preparing an EIA report for the establishment of industries located within gazetted and EIA approved industrial sites, the project proponent and EIA consultant shall be able to identify key issues related to the industrial activities being proposed. Below are the key issues and information to be made available to the assessor of the EIA report:-

(a) Existing Environment

Since the industrial activity proposed is to be located within gazetted and EIA approved industrial site, the explanation and description on the existing environment shall cover the existing air quality conditions at the industrial site and noise level conditions.

(b) Layout Plan Complete layout plan among other include where appropriate of:-

- Reception area with weighbridge and laboratory unit for sampling purposes.
- Special raw materials reception area and adjacent storage area.
- Plant buildings, machinery, and related infrastructure.
- Truck cleaning area.
- Bund walls and drainage systems isolating handling storage/cleaning and operational areas.
- Emergency on-site storage pond for liquid wastes.
- Lined storm water retention pond/ storm water system as a contingency for excessive run off from contaminated areas.
- Floor linings of adequate design, incorporating a surface concrete layer, usually underlying a sand layer and a final PVC layer.
- Roofing of potentially contaminated areas and storage areas with separate drainage.
- Processing/manufacturing areas.
- Storage areas for residual wastes and scheduled wastes.
- Wastewater treatment systems (if any).
- Good ventilation systems.
- Fire-fighting system, sprinkler systems and facilities.
- Security fencing, boundary fencing and controlled access.

(c) Landuse map

A clear cadastral map showing the site location of the proposed project site and a description of the surrounding industrial activities. This is to ensure that the location of the proposed site is compatible with the industrial activities within the gazetted industrial site.

(d) Project Concept and Components

A clear description on the project concept and project components.

(e) Process Description

A comprehensive flow chart of the process production and detailed explanation on the process including criterias involved and the maximum capacity.

(f) Physical and Chemical Characteristic of the Raw Materials Chemical or Material Safety data sheets of the raw materials used in the process.

(g) Mass Balance Calculation

Every single process should be attached with mass balance calculations which means the quantification of total materials into and out of a process with the difference between inputs and outputs being accounted for as a release to the environment or as part of the facility's waste.

(h) Potential Significant Impacts

Based on the critical issues perform in the industrial process and type of industries, the impact analysis should be mentioned in the EIA report among others are:-

- Gaseous emissions from the stack; ambient and ground level concentration;
- Discharge of process effluent in terms of the quality and quantity;
- Accidental spills and leakages;
- Noise emissions;
- Health and safety;
- Management of scheduled wastes;
- Transportation of raw materials and products;
- Risk.

Each key issue should be addressed in terms of predicted impacts, proposed mitigation and residual impacts. Rate each key issue by magnitude and duration.

Predictions of impacts are normally based on commonly used methodologies and models. The significance of the predicted adverse impacts can be evaluated based on one or more of the following:

- comparison of laws, regulations or accepted national or international standards
- consistency with the pre-set policy objects (such as land use, economic development, and others)

(i) Pollution Control–Mitigation and Abatement Measures

Mitigation of impacts is the stage to determine possible preventative, remedial or compensatorymeasures for each of the adverse impacts evaluated as significant. Mitigation measures shall take into account, but not limited to, the following:

(i) adequate buffer zones;

(ii) adequate air pollution controls, and comprehensive wastewater treatment systems;

(iii) need for separate drainage systems for spillage;

(iv) storage and handling of raw materials and products;

(v) alternative process technology and raw materials which are safer and more environment friendly;

(vi) minimization of wastes e.g by closed loop processing;

(vii) recycling and recovery of wastes.

Mitigation measures should be described and mapped for each adverse impact, according to specifications and location. Mitigation should be specific to the impact and linked to the activity by schedule of occurrence.

Commitments from project proponents to adopt significant pollution control equipment can reduce negative impacts on environment. All the design measures which have been adopted into the project plan should be discussed in the EIA report. The pollution control technology chosen by the project proponent must be able to meet the relevant emission standards stipulated under the Environmental Quality Act, 1974 and other subsequent guidelines ie. Recommended Ambient Air Quality Standards.

The Emergency Response Plan (ERP) will be prepared by the proponent or his operator prior to start-up of the facility. In essence, the risk assessment report should provide an outline ERP indicating all issues that must be addressed by the ERP itself and specify minimum levels of safety provisions needed at the facility. Person involved in the recovery of hazardous wastes must be capable and adequately trained.

(j) Residual Impacts Potential environmental impacts may remain after mitigating measures have been adapted in to a project plan. These are described as residual impacts which generally require further studies during the detailed assessment stage. The residual wastes (highly toxic and dangerous) produced from the recovery process shall be disposed at the Central Waste Treatment and Disposal Facility, licensed from DOE. The residual waste cannot be recovered at all.

(k) Monitoring

The project proponent should describe the monitoring program needed which includes the monitoring program for ambient air quality, gas and hazardous emissions from the stacks, sewage (effluent), noise, scheduled waste analysis plan and products must be taken into account including the objective, target and compliance with applicable regulations.

CONCLUSIONS

13. Project proponents are encouraged to give attention to the following aspects of pollution control during the early planning stage of their projects:

    (a) Look into pollution control measures as early as at the pre-feasibility study stage. The pollution control technology chosen by the project proponent must be able to meet the relevant emission standards stipulated under the Environmental Quality Act, 1974;

    (b) Find possible modifications in the process line that can minimise waste generation;

    (c) Pollution prevention to be viewed as important as production process;

    (d) Engage in cleaner production; and

    (e) Consider recycling option as far as possible.

    In conclusion, project proponents and EIA Consultants should be aware that environmental issues are now a growing concern all over the world. Today, the public demands a better quality of life and environment. Therefore, investors should not only work towards complying with the law but also to fulfill their public obligations.

ENVIRONMENTAL QUALITY (CLEAN AIR) REGULATIONS 1978 P.U.(A) 280

New Installations Within Residential Areas Not Permitted Without Prior Approval (Regulation 4)

- Any equipment, plant or facility that may discharge or emit smoke as dark as or darker than shade No. 1 on a Ringelmann Chart.

- Any equipment, plant or facility used for the purpose of heating or generating of power that is rated to consume;

  (i) pulverized fuel;
  (ii) any solid fuel at 20 kilograms or more per hour; or
  (iii) any liquid or gaseous matter at 10 kilograms or more per hour.

- Any equipment, plant or facility that emits any solid particle exceeding 0.5 kilograms per hour.

- Any equipment, plant used for grain milling or polishing and consumes 1.5kw and above.

- Any wood working machinery that consumers 0.75kw and above.

- Any equipment plant or facility used in the manufacture, packing or repacking of paints, varnishes, lacquers and all pesticides listed in the First Schedule of the Pesticides Act, 1974.

- Any equipment or facility used in the manufactures, packing or repacking of industrial chemicals, in the process of which mercury, antimony, arsenic, cadmium, zinc, lead, copper or any compound thereof is emitted.

- Any equipment, plant or facility used in the manufacture, packing or repacking of fish manure or animal feed or fertilizer.

- Any equipment or plant in the manufacture of asbestos-containing products.

STACK GAS EMISSION STANDARDS
[Extract from Environment Quality (Clean Air) Regulations 1978]

Pollution	Emission Sources	Standards
1. Dark Smoke*	(1.1) Solid Fuel Equipment or Facilities	Ringlemann Chart No. 2
	(1.2) Equipment using other types of fuel	Ringelmann Chart No. 1
2. Dust	(2.1) Facilities used for the heating of metal other than Cold Blast Foundry Cupola	0.2 gm/Nm^3
	(2.2) Facilities discharging dust containing asbestos and free silica	0.12 gm/Nm^3
	(2.3) Portland Cement Manufacturing:	
	(2.3.1) Kiln	0.2 gm/Nm^3
	(2.3.2) Clinker, cooler, grinder, others	0.1 gm/Nm^3
	(2.4) Asphalt concrete/bituminous mixing plant:	
	(2.4.1) # Stationary Plant	0.3 gm/Nm^3
	(2.4.2) # Mobile Plant	0.4 gm/Nm^3
	(2.5) Other source	0.4 gm/Nm^3
3. Metal and Metallic Compound		
3.1. Mercury	Industry	0.01 gm/Nm^3
3.2. Cadmium	Industry	0.015 gm/Nm^3
3.3. Lead	Industry	0.025 gm/Nm^3
3.4. Antimony	Industry	0.025 gm/Nm^3
3.5. Arsenic	Industry	0.025 gm/Nm^3
3.6. Zinc	Industry	0.1 gm/Nm^3
3.7. Copper	Industry	0.1 gm/Nm^3

Pollution	Emission Sources	Standards
4. Gases		
(a) Acid gases	Sulphuric Acid Manufacturing.	3.5 gm of SO_3/Nm^3 and no persistent mist
(b) Sulphuric Acid Mist or SO_3 or both	Any Sources other than (a)	0.2 gm of SO_3/Nm^3 and no persistent mist
(c) Chorine gas	Any source	0.2 gm of HCl/Nm^3
(d) HCl	Any source	0.2 gm of HCl/Nm^3
(e) Fluorine, Hydrofluoric acid, inorganic fluorine compound	Aluminium Manufacturing From Alumina	0.2 gm of Hydrofluoric acid/ Nm^3
(f) - do -	Any source other than (e)	0.10 gm of Hydrofluoric acid/ Nm^3
(g) Hydrogen Sulphide	Any source	5 ppm (Vol%)
(h) NOx	Acid Nitric Manufacturing	1.7 gm of SO_3/Nm^3 and Substantially Colourless
(i) NOx	Any source other than (h)	2.0 gm SO_3/Nm^3

* Allowable to exceed both standards not longer than 5 minutes in any period of one hour and 15 minutes in any period of 24 hours.

THIRD SCHEDULE
ENVIRONMENTAL QUALITY ACT, 1974
Environmental Quality (Sewage and Industrial Effluents) Regulations, 1979
[Regulations 8(1), 8(2), 8(3)]
PARAMETER LIMITS OF EFFLUENT OF STANDARDS A AND B

Parameter	Unit	Standard	
		*A	B
a) Temperature	oC	40	40
b) pH Value	-	6.0-9.0	5.5-9.0
c) BOD_5 or 20°C	mg/l	20	50
d) COD	mg/l	50	100
e) Suspended Solids	mg/l	50	100
f) Mercury	mg/l	0.005	0.05
g) Cadmium	mg/l	0.01	0.02
h) Chromium, Hexavalent	mg/l	0.05	0.05
i) Arsenic	mg/l	0.05	0.10
j) Cyanide	mg/l	0.05	0.10
k) Lead	mg/l	0.10	0.5
l) Chromium, Trivalent	mg/l	0.20	1.0
m) Copper	mg/l	0.20	1.0
n) Manganese	mg/l	0.20	1.0
o) Nickel	mg/l	0.20	1.0
p) Tin	mg/l	0.20	1.0
q) Zinc	mg/l	2.0	2.0
r) Boron	mg/l	4.0	4.0
s) Iron (Fe)	mg/l	1.0	5.0
t) Phenol	mg/l	0.001	1.0
u) Free Chlorine	mg/l	1.0	2.0
v) Sulphide	mg/l	0.50	0.50
w) Oil and Grease	mg/l	Not Detectable	10.0

* This standard applies to the industrial and development projects which are located within catchment areas (areas upstream of surface or above sub-surface water supply intakes, for the purpose of human consumption including drinking)

Note

1. To minimise unnecessary pollution control cost, project proponents are advised to avoid siting of their proposed project that generate effluents in areas subject to Standard A. You may refer to the Fourth Schedule of the said Regulations or its latest update on catchment areas where Standard A applies. Otherwise Standard B generally applies.

2. These sets of uniform standards generally apply to both industrial and development projects throughout the country. However, the Environmental Quality Act, 1974 does provide legal provisions for project proponents to vary their standards of emissions or effluents, provided that a licence is obtained from the Director General of Environment. In granting suchlicence, consideration will be given to some factors such as technology availability and constraints and capacity of the area to receive additional pollution load. It must also be shown that contravention of the acceptable conditions will not cause hazards to public health, wild life, fish or aquatic life, or to plants or to affect adversely any beneficial use of the environment.

RECOMMENDED MALAYSIAN AIR QUALITY GUIDELINES
(Ambient Standards)
(at 250 Celsius and 101.13 kPa)

Pollutant and Method	Averaging Time	Malaysia Guidelines	
		(ppm)	(ug/m^3)
Ozone AS 2524	1 Hour 8 Hour	0.10 0.06	200 120
Carbon # Monoxide AS2695	1 Hour 8 Hour	30 9	35 10
Nitrogen Dioxide AS 2447	1 Hour	0.17	320
Sulfur Dioxide AS 2523	10 Minute 1 Hour 24 Hour	0.19 0.13 0.04	500 350 105
Particles TSP AS 2724.3	24 Hour 1 Year		260 90
PM_{10} AS 2724.6	24 Hour 1 Year		150 50
Lead AS 2800	3 Month		1.5

Recommended Malaysian Secondary Guidelines

Pollutant and Method	Averaging Time	Malaysia Guidelines (mg/m2/day)
Dustfall AS 2724.1	1 year	133

#mg/m^3

SCHEDULE
(Regulation 2)
Refrigerant Environmentally Hazardous Substances

Group	Chemical Formula	Substance
1	CFCl3	Trichhlorofluoromethane (CFC – 11)
	CF2Cl2	Dicholorodifluoromethane (CFC – 12)
	C2F3Cl3	Trichlorotrifluoroethane (CFC – 113)
	C2F4Cl2	Dichlorotetrafluoethane (CFC – 114)
	C2F5Cl	Chloropentafluoroethane

SCHEDULE 1
(Regulation 2)
List of Halon

Group	Chemical Formula	Common Name
Bromochlorodifluoromethane	CF2BRC1	Halon 1211
Bromotrifluoromethane	CF3Br	Halon 1301
Dibromotetrafluorothane	C2F4Br2	Halon 2402

A SUMMARY OF ENVIRONMENTAL REQUIREMENTS ON SCHEDULED WASTES

I. Environmental Quality (Schedules Wastes) Regulations 2005 (Amendment) 2007

1. The Environmental Quality (Scheduled Wastes) Regulations 2005 came into force since 15 August 2005, and is replacing the Environmental Quality (Scheduled Wastes) Regulations 1989. In 20 March 2007, the Environmental Quality (Scheduled Wastes) Regulations 2005 are then amended in the First Schedule, in relation to the particular appearing against code SW 104, by inserting after the word "containing" the words "aluminium".

2. Under these new regulations, scheduled wastes listed in the First Schedule are divided into 5 categories as per **Appendix L**. Waste generators should determine whether their wastes are classified under scheduled wastes. New generators of scheduled wastes are required to notify the Department of Environment within one month from the date of generation of wastes.

3. Scheduled wastes can be stored, recovered and treated within the premises of the waste generators. Such activities do not require licensing by the Department of Environment. A waste generator may store scheduled wastes generated by him for 180 days or less after its generation provided that the quantity of scheduled wastes accumulated on site shall not exceed 20 metric tonnes. However, waste generators may apply to the Director General in writing to store more than 20 metric tonnes of scheduled wastes. The containers that are used to store scheduled wastes shall be clearly labeled with the date when the scheduled wastes are first generated, name, address and telephone number of the waste generator.

4. Land farming, incineration, disposal and off-site facilities for recovery, storage and treatment can only be carried out at prescribed premises licenced by the Department of Environment. However with the signing of the concession agreement between the Government of Malaysia and Kualiti Alam Sdn. Bhd, all off-site treatment and disposal (incineration, wastewater treatment, storage and secure landfill) of scheduled wastes is not allowed. The agreement is from 18 December 1995 to 18 December 2010.

5. On-site incineration of scheduled wastes is not encouraged. If it is deemed necessary, application for the installation of such incinerator must strictly adhered to the Guidelines On the Installation of On-site Incinerator for the Disposal of Scheduled Wastes in Malaysia" (published by the Department of Environment), including carrying out a detailed environmental impact assessment and display of the EIA report for public comments.

6. Waste generators shall also keep an up to-date inventory of scheduled wastes generated, treated and disposed off. Proper labelling, containers and storage areas as well as prohibition of storage of incompatible waste are also required by law.

7. In the case of transporting the scheduled waste from the waste generator to the treatment and disposal facilities, the transporting of waste shall conform to the consignment note system whereby the movement of waste is monitored until it reaches the approved destination. It is the responsibility of a waste generator to monitor and ensure that the waste transported from his factory reaches the approved destination. The waste generator is responsible to inform the transport contractor regarding the nature of the waste and what actions to be taken during accidents to minimise damage to human life and the environment. Schedule wastes transporters should also be licenced by the Department of Environment.

8. Every waste generator shall ensure that all his employees involved in the identification, handling, labeling, transportation, storage and spill response of scheduled wastes, attend training programme.

II. Environmental Quality (Prescribed Premises)(Scheduled Wastes Treatment and Disposal Facilities) Order (Amendment) 2006

There are six types of premises prescribed under the Order that require written permission and a licence from the Department of Environment. The premises include:

a. Land treatment facilities such as sludge farming of oily wastes or sludges;
b. Off-site recovery facilities such as solvent recycling plant;
c. Off-site treatment facilities such as centralised physical/chemical wastewater treatment plant;
d. Scheduled wastes incinerators;
e. Off-site storage facilities including the premises of waste transport contractors; and
f. Secure landfills designated for the disposal of scheduled wastes.

III. Environmental Quality (Prescribed Premises) (Scheduled Wastes Treatment and Disposal Facilities) Regulations (Amendment) 2006

1. These regulations list the procedures for licence application, renewal and ownership transfer as well as requirements for record keeping and submission to the Department of Environment. Every owner or occupier of prescribed premises is responsible to keep accurate an up-to-date records of wastes handled and to submit these record within 14 days at the end of every period of 3 months to the Department of Environment.

2. Offences under these Regulations can be compounded up to a maximum of RM2,000.00 or offenders can be prosecuted in court and the maximum penalty is RM50,000.00 or imprisonment for a period not exceeding 2 years or both and to a further fine not exceeding RM1000.00 per day for every day the offence is continued.

FIRST SCHEDULE
ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005 (AMENDMENT) 2007

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 aluminium, 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 or polychlorinated biphenyl-capacitors, or contaminated with cadmium, mercury, lead, nickel, chromium, copper, lithium, silver, manganese or polychlorinated biphenyl
SW 2	**Wastes containing principally inorganic constituents which may contain metals and organic materials**
SW 201	Asbestos wastes in sludges, dust or fibre forms
SW 202	Waste catalysts

SW 203	Immobilized scheduled wastes including chemically fixed, encapsulated, solidified or stabilized sludges
SW 204	Sludges containing one or several metals including chromium, copper, nickel, zinc, lead, cadmium, aluminium, tin, vanadium and beryllium
SW 205	Waste gypsum arising from chemical industry or power plant
SW 206	Spent inorganic acids
SW 207	Sludges containing fluoride
SW 3	**Wastes containing principally organic constituents which may contain metals and inorganic materials**
SW 301	Spent organic acids with pH less or equal to 2 which are corrosive or hazardous
SW 302	Flux waste containing mixture of organic acids, solvents or compounds of ammonium chloride
SW 303	Adhesive or glue waste containing organic solvents excluding solid polymeric materials
SW 304	Press cake from pretreatment of glycerol soap lye
SW 305	Spent lubricating oil
SW 306	Spent hydraulic oil
SW 307	Spent mineral oil-water emulsion
SW 308	Oil tanker sludges
SW 309	Oil-water mixture such as ballast water
SW 310	Sludge from mineral oil storage tank
SW 311	Waste of oil or oily sludge

SW 312	Oily residue from automotive workshop, service station oil or grease interceptor
SW 313	Oil contaminated earth from re-refining of used lubricating oil
SW 314	Oil or sludge from oil refinery plant maintenance operation
SW 315	Tar or tarry residues from oil refinery or petrochemical plant
SW 316	Acid sludge
SW 317	Spent organometallic compounds including tetraethyl lead, tetramethyl lead and organotin compounds
SW 318	Waste, substances and articles containing or contaminated with polychlorinated biphenyls (PCB) or polychlorinated triphenyls (PCT)
SW 319	Waste of phenols or phenol compounds including chlorophenol in the form of liquids or sludges
SW 320	Waste containing formaldehyde
SW 321	Rubber or latex wastes or sludges containing organic solvents or heavy metals
SW 322	Waste of non-halogenated organic solvents
SW 323	Waste of halogenated organic solvents
SW 324	Waste of halogenated or unhalogenated non-aqueous distillation residues arising from organic solvents recovery process
SW 325	Uncured resin waste containing organic solvents or heavy metals including epoxy resin and phenolic resin
SW 326	Waste of organic phosphorus compound
SW 327	Waste of thermal fluids (heat transfer) such as ethylene glycol

SW 4	**Wastes which may contain either inorganic or organic constituents**
SW 401	Spent alkalis containing heavy metals
SW 402	Spent alkalis with pH more or equal to 11.5 which are corrosive or hazardous
SW 403	Discarded drugs containing psychotropic substances or containing substances that are toxic, harmful, carcinogenic, mutagenic or teratogenic
SW 404	Pathogenic wastes, clinical wastes or quarantined materials
SW 405	Waste arising from the preparation and production of pharmaceutical product
SW 406	Clinker, slag and ashes from scheduled wastes incinerator
SW 407	Waste containing dioxins or furans
SW 408	Contaminated soil, debris or matter resulting from cleaning-up of a spill of chemical, mineral oil or scheduled wastes
SW 409	Disposed containers, bags or equipment contaminated with chemicals, pesticides, mineral oil or scheduled wastes
SW 410	Rags, plastics, papers or filters contaminated with scheduled wastes
SW 411	Spent activated carbon excluding carbon from the treatment of potable water and processes of the food industry and vitamin production
SW 412	Sludges containing cyanide
SW 413	Spent salt containing cyanide
SW 414	Spent aqueous alkaline solution containing cyanide
SW 415	Spent quenching oils containing cyanides
SW 416	Sludges of inks, paints, pigments, lacquer, dye or varnish
SW 417	Waste of inks, paints, pigments, lacquer, dye or varnish

SW 418	Discarded or off-specification inks, paints, pigments, lacquer, dye or varnish products containing organic solvent
SW 419	Spent di-isocyanates and residues of isocyanate compounds excluding solid polymeric material from foam manufacturing process
SW 420	Leachate from scheduled waste landfill
SW 421	A mixture of scheduled wastes
SW 422	A mixture of scheduled and non-scheduled wastes
SW 423	Spent processing solution, discarded photographic chemicals or discarded photographic wastes
SW 424	Spent oxidizing agent
SW 425	Wastes from the production, formulation, trade or use of pesticides, herbicides or biocides
SW 426	Off-specification products from the production, formulation, trade or use of pesticides, herbicides or biocides
SW 427	Mineral sludges including calcium hydroxide sludges, phosphating sludges, calcium sulphite sludges and carbonates sludges
SW 428	Wastes from wood preserving operation using inorganic salts containing copper, chromium or arsenic of fluoride compounds or using compound containing chlorinated phenol or creosote
SW 429	Chemicals that are discarded or off-specification
SW 430	Obsolete laboratory chemicals
SW 431	Waste from manufacturing or processing or use of explosives
SW 432	Waste containing, consisting of or contaminated with peroxides
SW 5	**Other wastes**
SW 501	Any residues from treatment or recovery of scheduled wastes

CHECKLIST OF ACTIVITIES, PROJECTS OR INSTALLATIONS WHICH REQUIRE APPROVAL FROM THE DOE

Activities/ Installation	Licences or approvals	Tick appropriate required boxes
I. Industrial or Project Site Planning Stage		
(1) Prescribed Activities	EIA Report preparation and approval	☐
(2) Non-Prescribed Activities	Site Suitability Evaluation	☐
II. Prior To Construction Stage		
(3) Factory which generates effluents	Written Permission to construct	☐
(4) New installations near residential area	written approval to install	☐
(5) Fuel Burning Equipment:		
Boilers	written approval to install	☐
Incinerators	written approval to install	☐
Generator Sets	written approval to install	☐
Furnaces	written approval to installl	☐
Ovens	written approval to install	☐
Dryers	written approval to install	☐
Chimney/outlet/ vent discharge air impurities	written approval to install	☐
(6) Installation of air Pollution control and wastewater treatment system	Prior consultation with DOE	☐
(7) A facility that generates scheduled waste	Comply with Scheduled Waste Regulation 2005 (Amendment) 2007	☐
III. Prior to Operational Stage		
(8) Palm Oil, Natural Rubber Processing Mills, Schedule Wastes Treatment and Recovery Facilities, Scheduled Wastes Incinerators And Secure Landfills of Scheduled Wastes, Prescribed Conveyance	Licence to occupy and use	☐
(9) Effluent or Sludges Disposal on to Land	Writen Permission to dispose	☐
(10)New or additional source of discharge as a result of expansion of industrial activity (increase production capacity) for existing industry.	Permission to to dispose new or additional source of discharges	☐

SUMMARY OF APPROVALS ISSUED BY THE DEPARTMENT OF ENVIRONMENT

TYPE OF APPLICATION	PROCESSING FEE	LEGISLATION	APPLICATION CENTRE	TIME TAKEN FOR APPROVAL	MAIN TERMS/ CONDITIONS FOR APPLICATION/ SUPPORTING DOCUMENT
1. Environmental Impact Assessment (EIA)	-	Section 34A, Environmental Quality Act, 1974 (Act 127) Environmental Quality (Prescribed Activities) (EIA) Order, 1987	Preliminary EIA DOE State Offices Detailed EIA DOE Headquarters	Preliminary EIA 5 weeks Detailed EIA 12 weeks (including public display and comments)	EIA report whichmeets DOE's requirements (Section 34A). Site selection is important and is evaluated in terms of its compatibility with respect tothe gazetted structure/local plans, surrounding landuse, provision of set-backs or buffer zones, the capacity of the area to receive additional pollution load, and waste disposal requirements. Risk analysis shall be included for projects involved with handling of dangerous and hazardous goods.

TYPE OF APPLICATION	PROCESSING FEE	LEGISLATION	APPLICATION CENTRE	TIME TAKEN FOR APPROVAL	MAIN TERMS/ CONDITIONS FOR APPLICATION/ SUPPORTING DOCUMENT
2. Preliminary Site Suitability Assessment		Industries/ activities which are not listed as prescribed activities under the Environmental Quality (Prescribed Activities) (EIA) Order, 1987	DOE State Offices	3 weeks	Form Preliminary screening form for new industries. Compatibility of industries with the surrounding land use and the land use planning. Information required - Information on the industry, site, raw materials, products and inventory of materials stored on the premises.

TYPE OF APPLICATION	PROCESSING FEE	LEGISLATION	APPLICATION CENTRE	TIME TAKEN FOR APPROVAL	MAIN TERMS/ CONDITIONS FOR APPLICATION/ SUPPORTING DOCUMENT
3. Written Permission **To construct any building which will result in a new source of effluent discharge.** **To increase production capacity which will cause material change in quality/ quality of effluent**	Palm Oil Palm, Rubber Mill and other Industries RM100.00 Treatment and disposal facilities of scheduled wastes RM1000.00			3 weeks	Able to treat the effluent discharged to the standard required under the regulations. Information required Information on the site, industries, raw materials, products, design of the treatment systems and the quality/quality of effluent. Forms AS 3 - Palm Oil Mill AS 6 - Rubber Mill AS 9 - Industries other than Palm Oil and Rubber Mill Off-site treatment facilities AS 10 - Land treatment facilities AS 11 - Off-site recovery facilities AS 12 - Secure landfill AS 13 - Off-site storage facilities AP/E/INC- Scheduled waste incinerators.

TYPE OF APPLICATION	PROCESSING FEE	LEGISLATION	APPLICATION CENTRE	TIME TAKEN FOR APPROVAL	MAIN TERMS/ CONDITIONS FOR APPLICATION/ SUPPORTING DOCUMENT
4. Written Approval **To install, resite or alter fuel burning equipment, incinerator or chimney.**		Environmental Quality (Clean Air) Regulations, 1978	DOE State Offices	3 weeks	Able to comply with the emission standard under the regulations. Information required Information on the equipment, fuel/ combustion materials, design of the equipment, heights of the chimney and quantity and quality of the emission. Forms AP/E/2/INC - Incinerator AP/E/1/86 - Fuel Burning Equipment AP/E/3P/82 - Generator AS16D-1 - Scrubber AS16D-2 - Cyclone AS16D-3 - Bagfilter

TYPE OF APPLICATION	PROCESSING FEE	LEGISLATION	APPLICATION CENTRE	TIME TAKEN FOR APPROVAL	MAIN TERMS/ CONDITIONS FOR APPLICATION/ SUPPORTING DOCUMENT
5. Licence to Occupy and Use the Prescribed Premises	Processing Fee for all prescribed premises RM100.00 Effluent Related Fee for palm oil mill and rubber mill Calculated based on the quantity and quality of effluent.	Environmental Quality Act, 1974 (Act 127) Environmental Quality (Prescribed Premises) (Crude Palm Oil) Regulations, 1977 Environmental Quality (Prescribed Premises) (Raw Natural Rubber) Regulations 1978 Environmental Quality (Licensing) Regulations, 1977 Environmental Quality (Prescribed Premises) (Scheduled Wastes Treatment and Disposal Facilities) Regulations (Amendment) 2006.	DOE State Offices	Palm Oil Mill (Validity 1st July-30th June). Processing period for : Licence renewal 1 week for application by post. Instant approval when submitting the application in-person at DOE State Offices. New licence 2 weeks. Rubber Mill (Validity 1st April-30th March) Processing period for : Licence renewal 1 week for application by post. Instant approval when submitting the application in-person at DOE State Offices. New licence 2 weeks.	Form AS 1 - for all licence applications AS 3 & 4 - Palm Oil Mill Form AS 1 - for all licence applications AS 6 & 7 - Rubber Mill Obtain EIA approval for scheduled wastes treatment and disposal facilities. The facilities have been constructed Form AS 1 - for all licence applications

TYPE OF APPLICATION	PROCESSING FEE	LEGISLATION	APPLICATION CENTRE	TIME TAKEN FOR APPROVAL	MAIN TERMS/ CONDITIONS FOR APPLICATION/ SUPPORTING DOCUMENT
				Scheduled Waste Treatment and Disposal Facilities (Validity 1st May - 30th April) Processing period for : Licence renewal 1 week for application by post. Instant approval when submitting the application in-person at DOE State Offices. New licence 2 weeks.	
6. Disposal of spoil/dredged material at sea	-	-	DOE State Offices	5 weeks	Environmental Assessment Report on the suitability of the proposed disposal site at sea, prior to the coordinates given by the Marine Department and comments form Fisheries Department.

APPENDIX N

TYPE OF APPLICATION	PROCESSING FEE	LEGISLATION	APPLICATION CENTRE	TIME TAKEN FOR APPROVAL	MAIN TERMS/ CONDITIONS FOR APPLICATION/ SUPPORTING DOCUMENT
7. Special Management of Scheduled Wastes	RM300.00	Environmental Quality Act, 1974 (Act 127) Environmental Quality (Scheduled Wastes) Regulations 2005 (Amendment) 2007	DOE Head Quarters	8 weeks	Application has to comply with the criteria as per the Guidelines for Special Management of Scheduled Wastes. Waste generators may be allowed to send scheduled wastes generated from their particular facility or process to facilities other than at the prescribed premises, prior to approval from the DOE.
8. Export of Scheduled Wastes	-	Environmental Quality Act, 1974 (Act 127) Environmental Quality (Scheduled Wastes) Regulations 2005 (Amendment) 2007 Custom (Prohibition on Export) Order (Amendment) 2006	DOE Head Quarters	Notification to importing/ transit countries – 3 weeks. Consent from the importing/ transit countries – depending on the time taken by each countries to review such application.	AS 15. Export (Rev. 2006), with the checklist of documents to be submitted to the DOE, among others:- Bank Guarantee of RM 25,000.00 Insurance Coverage Agreement between waste generator and the final receiver in the importing country.

TYPE OF APPLICATION	PROCESSING FEE	LEGISLATION	APPLICATION CENTRE	TIME TAKEN FOR APPROVAL	MAIN TERMS/ CONDITIONS FOR APPLICATION/ SUPPORTING DOCUMENT
		Basel Convention on the Transboundary Movements of Hazardous Wastes.		Final approval from DOE (Export Permit) prior to the consent from importing/ transit countries – 3 week.	Details on the licenced recovery facility/ final receiver in importing country.
9. Import of Scheduled Wastes	-	Environmental Quality Act, 1974 (Act 127) Environmental Quality (Scheduled Wastes) Regulations 2005 (Amendment) 2007 Custom (Prohibition on Import) Order (Amendment) 2005 Basel Convention on the Transboundary Movements of Hazardous Wastes.	DOE Head Quarters	Application from the local importer and a letter of notification from exporting country - 3 weeks. Final approval from DOE (Import Permit) and consent to the exporting country – 3 weeks	Form AS 14. Import. Bank Guarantee of RM 10,000.00 Agreement between final receiver in Malaysia with waste generator in exporting country.