

# **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.
- e. EIA Guidelines For Petrochemical Industries.
- f. EIA Guidelines For Petroleum Industries

### **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**

7. 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:*

- 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.*

*\* 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:*

- 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.*

- 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.

**C. Gaseous Emission 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 1 and 2** 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. 2) 1993, and;*
- vi. *Customs (Prohibition of Import) Order (Amendment)(No. 2) 1993.*

## **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 3**. 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 runoff 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 compensatory measures for each of the adverse impacts evaluated as significant. Mitigation measures shall take into account, but not limited to, the following:

- (a)adequate buffer zones;
- (b)adequate air pollution controls, and comprehensive wastewater treatment systems;
- (c)need for separate drainage systems for spillage;
- (d)storage and handling of raw materials and products;
- (e)alternative process technology and raw materials which are safer and more environment friendly;
- (f) minimization of wastes e.g by closed loop processing;
- (g)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; Planning Guidelines for Environmental Noise Limit and Control, etc.

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.

## CONCLUSION

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.

## REFERENCES

1. Environmental Quality Act, 1974
2. Environmental Impact Assessment Guidelines for Industrial Projects, Department of Environment, December 1995, EG 11/95.
3. Environmental Impact Assessment Guidelines for Petroleum Industries, Department of Environment, June 1994.
4. Guidelines for the Siting and Zoning of Industries, Department of Environment, EG11/94.
5. A Handbook of EIA
6. Environmental Requirements: A Guide for Investors

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## Appendix 1

### STACK GAS EMISSION STANDARDS

[EXTRACT FROM ENVIRONMENT QUALITY (CLEAN AIR) REGULATIONS 1978]

Pollution	Emission Sources	Standards
<b>1. Dark Smoke*</b>	1.1 Solid Fuel Equipment or Facilities	Ringlemann Chart No. 2
	1.2 Equipment using other types of fuel	Ringlemann Chart No. 1
<b>2. Dust</b>	2.1 Facilities used for the heating of metal other than Cold Blast Foundry Cupola	0.2 gm/Nm <sup>3</sup>
	2.2 Facilities discharging dust containing asbestos and free silica	0.12 gm/Nm <sup>3</sup>
	2.3 Portland Cement Manufacturing:	0.2 gm/Nm <sup>3</sup>
	a) Kiln	0.1 gm/Nm <sup>3</sup>
	b) Clinker, cooler, grinder, others	
	2.4 Asphalt concrete/bituminous mixing plant:	
a) # Stationary Plant	0.3 gm/NM <sup>3</sup>	
b) # Mobile Plant	0.4 gm/Nm <sup>3</sup>	
2.5 Other source	0.4 gm/Nm <sup>3</sup>	

Pollution	Emission Sources	Standards
<p><b>3. Metal and Metallic Compound</b></p> <p>3.1. Mercury</p> <p>3.2. Cadmium</p> <p>3.3. Lead</p> <p>3.4. Antimony</p> <p>3.5. Arsenic</p> <p>3.6. Zinc</p> <p>3.7. Copper</p>	<p>Industry</p> <p>Industry</p> <p>Industry</p> <p>Industry</p> <p>Industry</p> <p>Industry</p> <p>Industry</p>	<p>0.01 gm/Nm<sup>3</sup></p> <p>0.015 gm/Nm<sup>3</sup></p> <p>0.025 gm/Nm<sup>3</sup></p> <p>0.025 gm/Nm<sup>3</sup></p> <p>0.025 gm/Nm<sup>3</sup></p> <p>0.1 gm/Nm<sup>3</sup></p> <p>0.1 gm/Nm<sup>3</sup></p>
<p><b>4. Gases</b></p> <p>(a) Acid gases</p> <p>(b) Sulphuric Acid Mist or SO<sub>3</sub> or both</p> <p>(c) Chlorine gas</p> <p>(d) HCl</p> <p>(e) Fluorine, Hydrofluoric acid, inorganic fluorine compound</p> <p>(f) - do -</p> <p>(g) Hydrogen Sulphide</p>	<p>Sulphuric Acid Manufacturing.</p> <p>Any Sources other than (a)</p> <p>Any source</p> <p>Any source</p> <p>Aluminium Manufacturing From Alumina</p> <p>Any source other than (e)</p>	<p>3.5 gm of SO<sub>3</sub>/Nm<sup>3</sup> and no persistent mist</p> <p>0.2 gm of SO<sub>3</sub>/Nm<sup>3</sup> and no persistent mist</p> <p>0.2 gm of HCL/Nm<sup>3</sup></p> <p>0.4 gm of HCL/Nm<sup>3</sup></p> <p>0.02 gm of Hydrofluoric acid/ Nm<sup>3</sup></p> <p>0.10 gm of Hydrofluoric acid/ Nm<sup>3</sup></p> <p>5 ppm (Vol%)</p>

<b>Pollution</b>	<b>Emission Sources</b>	<b>Standards</b>
(h) NO <sub>x</sub>	Any source	
(i) NO <sub>x</sub>	Acid Nitric Manufacturing  Any source other than (h)	1.7 gm of SO <sub>3</sub> /Nm <sup>3</sup> and Substantially Colourless  2.0 gm SO <sub>3</sub> /Nm <sup>3</sup>

\* 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.

## Appendix 2

### PARAMETER LIMITS OF EFFLUENT OF STANDARDS A AND B THIRD SCHEDULE, ENVIRONMENTAL QUALITY (SEWAGE AND INDUSTRIAL EFFLUENTS) REGULATIONS, 1979.

Parameter	Unit	Standard	
		*A	B
a) Temperature	°C	40	40
b) pH Value	-	6.0-9.0	5.5-9.0
c) BOD <sub>5</sub> 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	1.0	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		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 such licence, 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.

## Appendix 3

### 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	<ul style="list-style-type: none"> <li>◆ Industries shall not generate excessive noise.</li> <li>◆ Industries shall not accommodate stacks or chimneys thus producing no gaseous emissions.</li> <li>◆ Industries shall not discharge industrial effluent apart from sewage and kitchen waters and non-toxic solid wastes.</li> <li>◆ Industries shall not use any raw materials which are toxic and hazardous and therefore will not produce any scheduled wastes.</li> <li>◆ Industries shall have height restrictions determined by the Local Authority.</li> <li>◆ Industries shall use electricity and gas as fuels.</li> <li>◆ Industries shall not use any radioactive material and scheduled wastes.</li> </ul> <p><i>Note: Light industries (Type A) shall not produce any industrial emissions and significant discharges.</i></p>	30 m
Light B	<ul style="list-style-type: none"> <li>◆ Industries shall not generate excessive noise.</li> <li>◆ Industries shall not accommodate stacks or chimneys thus producing no gaseous emissions.</li> <li>◆ Industries shall not use any raw materials or produce any scheduled wastes.</li> <li>◆ Industries shall have height restrictions determined by the Local Authority.</li> <li>◆ 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.</li> <li>◆ Compatibility in industrial mixing, eg. Between food based industries and leather-based industries.</li> <li>◆ Industries shall not use any radioactive materials or scheduled wastes.</li> </ul>	50 m

INDUSTRIES	DESCRIPTIONS AND STANDARD REQUIREMENTS	BUFFER ZONE
	<p><i>Note: Industrial Effluent discharge and gaseous emissions shall meet the relevant Environmental Quality Regulations as stipulated in the Environmental Quality Act, 1974.</i></p>	
<p>Medium</p>	<ul style="list-style-type: none"> <li>◆ These industries could generate significant noise from machineries, generators etc but which could be controlled to meet the level as stipulated in the Planning Guidelines for Environmental Noise Limits and Control, DOE, 2004.</li> <li>◆ Industries could emit some gaseous emission but which can be controlled to comply with the Environmental Quality (Clean Air) Regulation 1978.</li> <li>◆ 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.</li> <li>◆ These industries could use toxic and hazardous raw materials in its productions.</li> <li>◆ 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.</li> <li>◆ 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.</li> <li>◆ 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.</li> <li>◆ 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.</li> <li>◆ These industries shall not use any radioactive materials.</li> </ul> <p><i>Note: All discharges and emissions shall meet the relevant Environmental Quality Regulations stipulated in the Environmental Quality Act, 1974.</i></p>	<p>250 m</p>

INDUSTRIES	DESCRIPTIONS AND STANDARD REQUIREMENTS	BUFFER ZONE
Heavy	<ul style="list-style-type: none"> <li>◆ 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.</li> <li>◆ 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 meet the level as allowed in the Planning Guidelines for Environmental Noise Limits and Control, DOE, 2004.</li> <li>◆ 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.</li> <li>◆ Stack heights shall be determined by detailed air quality modelling and simulations within the EIA Report.</li> <li>◆ 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.</li> <li>◆ 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.</li> <li>◆ 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.</li> </ul>	500 m

INDUSTRIES	DESCRIPTIONS AND STANDARD REQUIREMENTS	BUFFER ZONE
	<ul style="list-style-type: none"> <li>◆ Siting within an industrial estate or zones should take into consideration the compatibility in industrial mixing.</li> <li>◆ Hot water discharges shall be supported by thermal plume modelling and simulations to be clearly presented in the EIA Report.</li> </ul> <p><i>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.</i></p>	
Special	<ul style="list-style-type: none"> <li>◆ 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.</li> <li>◆ 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.</li> <li>◆ Industries that will eliminate or minimize emissions, wastewater discharges and schedule waste production.</li> <li>◆ Industries shall be located within designated special industries zones, being compatible with the neighbouring plants, which are designed to be environmentally friendly.</li> </ul> <p><i>Note: Near-zero emissions and discharges shall be achieved by incorporating clean technologies.</i></p>	200 m