

*Government Notice No. 255 of 2008*

**THE ENVIRONMENT PROTECTION ACT 2002**

**Regulations made by the Minister under sections 48 and 96 of  
the Environment Protection Act 2002**

1. These regulations may be cited as the Environment Protection (Industrial Waste Audit) Regulations 2008.

2. In these regulations –

“activity” means an industrial activity specified in the First Schedule;

“Committee” means the Industrial Waste Audit Committee set up under regulation 7(1);

“environmental management plan” means a plan containing information specified in the Second Schedule;

“industrial waste audit” means making an account of the waste generated from an industrial activity, and includes keeping the record of the origin, composition, quantity and disposal routes of such waste;

“Industrial Waste Audit Form” means the Industrial Waste Audit Form set out in the Third Schedule;

“Industrial Waste Audit Report” means a report containing the information specified in the Fourth Schedule;

“waste” includes –

(a) any matter, whether solid, liquid, gaseous or radioactive, which is discharged, emitted or deposited in the environment;

(b) noise and vibration;

(c) any discarded, rejected, abandoned, unwanted or surplus matter, including any such matter intended for –

(i) recycling, reprocessing, recovery or purification by a separate operation from that which produced the matter;

(ii) sale; or

(iii) export.

3. Any person who carries out an activity, shall –

(a) conduct an industrial waste audit; and

(b) fill in an Industrial Waste Audit Form and submit it to the Director,

not later than 12 months from the date of commencement of the activity.

4. Any person who, at the commencement of these regulations, is carrying out an activity, shall –

(a) conduct an industrial waste audit; and

(b) fill in an Industrial Waste Audit Form and submit it to the Director,

not later than 3 months after the commencement of these regulations.

5. Where an activity is being carried out at more than one site, the person responsible shall in respect of each site, comply with the requirements specified in regulations 3 and 4 as applicable.

6. (1) The Director may, on receipt of the Industrial Waste Audit Form submitted under regulations 3 and 4, direct the person carrying out the activity to –

- (a) submit an Industrial Waste Audit Report, in such form and manner as he determines, within a period of 6 months;
- (b) develop an environmental management plan and submit same for approval to the Director within a period of 9 months of having carried out the industrial waste audit; and
- (c) implement the environmental management plan after it has been approved by the Director.

(2) Where the Director issues a directive under paragraph (1), the person carrying out the activity shall –

- (a) submit to the Director a progress report on the environmental management plan as and when requested;
- (b) ensure that at least one of his employees on each site at which an activity is held is responsible for the preparation, implementation and monitoring of the environmental management plan; and
- (c) inform the Director of any change in process or activity.

7. (1) There shall be for the purpose of effective enforcement of these regulations an Industrial Waste Audit Committee which shall consist of –

- (a) the Director or his representative as the Chairperson;
- (b) a representative of the Ministry responsible for the subject of solid waste and hazardous waste;

- (c) a representative of the Wastewater Management Authority;
- (d) a representative of the Ministry responsible for the subject of health;
- (e) a representative of the Ministry responsible for the subject of housing and lands;
- (f) an officer of the “Police de L’Environnement”; and
- (g) one or more officers of the Department, designated by the Director, one of whom shall be the secretary of the Committee.

(2) The Committee may co-opt such other member as it thinks fit as and when required and any co-opted member shall have no right to vote.

(3) At a meeting of the Committee, half of the number of its members shall constitute a quorum, inclusive of the Chairperson.

(4) The Committee shall conduct its proceedings in such manner as it thinks fit.

**8.** The Committee shall –

- (a) develop criteria or guidelines for the evaluation of the Industrial Waste Audit Form and decide whether an Industrial Waste Audit Report would be required;
- (b) make recommendations to the Director for the approval of the environment management plan;
- (c) establish monitoring programme and develop reporting formats to ensure compliance with these regulations;

- (d) ensure proper implementation of measures mentioned within an environment management plan;
- (e) prepare and submit annual progress reports to the Director; and
- (f) determine appropriate enforcement measures in case of non-compliance with the regulations.

**9.** Any person who contravenes these regulations shall commit an offence, and shall on conviction, be liable to a fine not exceeding 50,000 rupees.

**10.** These regulations shall come into operation on 01 April 2009.  
Made by the Minister on 07 November 2008.

**FIRST SCHEDULE***(regulation 2)***LIST OF INDUSTRIAL ACTIVITIES REQUIRING  
AN INDUSTRIAL WASTE AUDIT**

1. Alcohol manufacturing
2. Beer manufacturing
3. Beverage manufacturing
4. Casting, smelting or metallurgical work
5. Dairy processing
6. Food canning
7. Food processing
8. Incineration of more than 200 kg waste per hour
9. Laundry processing
10. Lime manufacturing
11. Manufacturing of animal feed
12. Manufacturing of chemical fertiliser
13. Manufacturing of paint, pigment and varnish
14. Manufacturing of pharmaceutical products
15. Manufacturing of soap and detergents
16. Metal plating and galvanising
17. Monkey rearing above 500 heads
18. Rearing of livestock
  - (i) poultry production – above 500 layers or broilers
  - (ii) pig rearing – above 100 heads
  - (iii) cattle herd – above 100 heads
19. Recycling and treatment of used oils
20. Refining and processing of edible oils and fats

21. Slaughtering of bird - not less than 5000 birds per month
22. Slaughtering of cattle
23. Spirit manufacturing
24. Stone crushing activities, including block making, asphalt mix, ready-mix and basalt sand
25. Storage of solid bulk material in open air in the Ports Area
26. Sugar manufacturing and refining
27. Tanning and leather finishing
28. Textile industry associated with spinning, weaving, washing, knitting, bleaching and printing
29. Thermal power production
30. Treatment of wastewater
31. Wine manufacturing

**SECOND SCHEDULE***(regulation 2)***INFORMATION TO BE INCLUDED IN  
THE ENVIRONMENTAL MANAGEMENT PLAN**

1. A brief overview of the organisation's major business activities, location, floor space and number of employees.
2. Statement of the organisation's environmental policy and its commitment by top management.
3. Description of the environmental objectives and targets that will be achieved, including time scales for implementing the environmental management plan (EMP), management approach and environmental review of any new activity. Gantt charts or equivalent schedule planning tools for the planning and implementation of the environmental management plan and environmental review.
4. Description of the organisational structure and personnel responsible for implementing the environmental management plan. The following may be considered –
  - (a) setting up of a team that will be responsible for the planning and implementation of the environmental management plan;
  - (b) training and awareness raising;
  - (c) description of a documentation format and structure; and
  - (d) establishment of a process file and tracking system.
5. (1) Indication as to whether the organisation's activities comply with all environmental laws giving reasons in case of non-compliance.



- 
- (2) Description of any cleaner production or pollution prevention measures taken by the organisation to be in compliance with environmental laws.
  - (3) List of all the chemicals used as raw materials within the activity.
6. Description of how the organisation addresses the following environmental issues –
- (1) Air Pollution
    - (a) Describe all present emissions released to the atmosphere.
    - (b) List the major pollutants.
    - (c) Specify whether the organisation is complying with the prescribed standards related to air.
      - Yes (Please indicate the monitoring programme including sampling methods, frequency of analysis and results. State whether results are submitted regularly to the Department of Environment.)
      - No (Please indicate what abatement measures the organisation is proposing to take within a specified time-frame and the eventual monitoring programme.)
  - (2) Water Pollution
    - (a) List the points of discharge of effluents, and specify the volume of the effluents discharged.
    - (b) Specify the characteristics of all effluents discharged.

- (c) State whether the effluents comply with the relevant prescribed standards prior to their discharge.
- Yes (Please indicate the monitoring programme, including sampling methods, frequency of analysis, and results. State whether results are submitted regularly to the relevant authority.)
  - No (Please indicate what abatement measures the organisation is proposing to take within a specified time-frame and the eventual monitoring programme.)
- (3) Solid Waste
- (a) Indicate the types of solid waste produced and their methods of disposal.
  - (b) Describe in what manner the organisation is minimising or proposes to minimise its solid waste.
- (4) Hazardous Substance
- (a) List the major hazardous substances used as raw materials by the organisation.
  - (b) Describe the storage and handling methods of the hazardous substance.
  - (c) Describe the existing or proposed environmental safety measures put in place in the organisation.
- (5) Hazardous Waste
- (a) List all hazardous waste produced by the organisation.
  - (b) Describe how these are stored, contained and disposed of.

(c) Describe in what manner the organisation is minimising the generation of hazardous waste.

(6) Environmental Noise

(a) Identify the sources of excessive noise and vibration in the organisation.

(b) Indicate the maximum noise levels in decibels at the boundary of the premises where the industrial activity is being carried out.

(c) Indicate whether an existing or proposed control measures are being taken or will be taken within a specified time-frame to abate the noise.

(7) Odour

(a) Identify the sources which are causing odour problems.

(b) Indicate whether existing or proposed control measures are being taken or will be taken within a specified time-frame to abate odour.

7. Description of the organisation's existing or proposed training and awareness programme on environmental management for its employees.

8. Description of the system put in place by the organisation for record-keeping of raw materials used, water consumption, energy consumption, product manufactured and the results of analyses.

9. Description of the organisation's emergency preparedness and response programme pertaining to the environment.

10. Any other information which the organisation considers relevant.

**THIRD SCHEDULE***(regulation 2)***INDUSTRIAL WASTE AUDIT FORM  
GENERAL INFORMATION**

1. Name of organisation: .....
2. Address and locational map *(to be annexed)*:  
.....  
.....  
.....
3. Telephone: ..... Fax: .....  
e-mail address: .....
4. Start of operation (month and year): .....
5. Industrial Activity: .....
6. (i) Name of contact person: .....  
(ii) Post held: .....
7. No. of employees: .....  
(a) Supervisory grade: .....  
(b) Other employees *(clerical, manual, drivers etc.)*: .....
8. Hours of operation *(starting to finishing time)*:  
(a) Weekday ..... (b) Weekend .....

- 
9. Total space (m<sup>2</sup>): .....
- (a) Office..... (b) Factory .....
10. Products manufactured and monthly or annual output  
(*please attach sheet if necessary*):
- .....
- .....
- .....
11. Please attach a site plan and a simplified process flowchart  
of the organisation.
12. Type of major raw materials, including chemicals  
(*please attach sheet if necessary*) and natural resources  
used for operation and their monthly or annual average  
consumption
- Raw materials: .....
  - Fuel (coal, diesel, heavy oil, LPG, etc.) .....
  - Water (m<sup>3</sup>) ..... yearly  ..... monthly  ..... daily
  - Electricity (KWh)..... yearly  ..... monthly  ..... daily
13. Nature of complaints received (e.g. noise, air, odour) from  
neighbours, NGOs or others (if any):-
- .....
- .....
- .....

14. Does the organisation hold –
- an EIA licence? (if Yes, please give date of issuance and reference number of the licence ..... ) or
  - an approved PER? (if Yes, please give date of approval and reference number of the PER ..... )
15. Does the organisation have in place an environmental management system or any other system?
- Yes (Please specify – the system .....  
Date of certification .....  
Name of accreditation body) .....
  - No (Please specify whether the organisation intends to put in place such a system or any other system, indicating a tentative date for implementing same.)  
.....  
.....

## SPECIFIC INFORMATION

### AIR

1. If the organisation's activities result in air emission, have these been identified, measured, documented and complied with the existing legislation?
- Yes (Please submit results for the last 3 years, if available.)
  - No

2. Does the organisation have an up-to-date site plan and a simplified process flowchart showing all existing sources of air pollution?

- Yes (Please submit site plan and a simplified process flow chart.)
- No

3. Does the organisation have on site any of the following equipment or plant generating air emission?

<i>Equipment/plant</i>	<i>Yes</i>	<i>No</i>	<i>Number</i>	<i>Type of fuel</i>	<i>Amount of fuel</i>	<i>Capacity *</i>
Incinerator	<input type="checkbox"/>	<input type="checkbox"/>	.....	.....	.....	.....
Boiler	<input type="checkbox"/>	<input type="checkbox"/>	.....	.....	.....	.....
Power Generator	<input type="checkbox"/>	<input type="checkbox"/>	.....	.....	.....	.....
Others, please	<input type="checkbox"/>	<input type="checkbox"/>	.....	.....	.....	.....

Specify

(\* for boiler, please specify steam capacity and pressure in bars)

4. Are the operators of the above-mentioned equipment or plant properly trained?

- Yes (Please indicate by whom they are trained.)

.....  
 .....

- No

5. What type of fuel does the organisation use as a source of energy? If fuel use is highly fluctuating, please indicate high and low monthly usage.

<i>Type of fuel</i>	<i>Average Monthly Consumption</i>	<i>High and Low Monthly Usage</i>
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

6. Does the organisation have air pollution control equipment in operation?

Yes (please briefly indicate the type of abatement equipment, its efficiency and the frequency of maintenance of equipment.)

Type of equipment: (eg. Scrubber, filters etc.) .....  
Efficiency (%) .....  
Frequency of maintenance .....

No (Does the organisation propose to take any measure to reduce the emission? Briefly describe the measures to be taken):

.....  
.....  
.....  
.....



7. Has the organisation taken initiatives for the removal of all sources of potential nuisance to the neighbourhood such as the following?

<i>Sources of nuisance</i>	<i>Yes</i>	<i>No</i>	<i>Yes (Please specify action taken.)</i>
Dust on the roads	<input type="checkbox"/>	<input type="checkbox"/>	.....
Leaks and spills	<input type="checkbox"/>	<input type="checkbox"/>	.....
Excessive smoke emissions from stacks	<input type="checkbox"/>	<input type="checkbox"/>	.....
Uncovered storage piles of materials	<input type="checkbox"/>	<input type="checkbox"/>	.....
Excessive noise	<input type="checkbox"/>	<input type="checkbox"/>	.....
Odours	<input type="checkbox"/>	<input type="checkbox"/>	.....

Please specify any other potential nuisance generated by the industrial activity:

.....

.....

**WATER**

1. Does the organisation have an up-to-date site plan of its industrial activity (indicating the pipe lines and the sewer lines) and a simplified process flowchart showing all existing sources of water pollution and its points of discharge?

- Yes (Please submit its site plan and process flow chart.)
- No

- 2 For what purpose is water consumed by the organisation and how much water does the organisation consume

monthly? If water use is highly fluctuating, please indicate high and low monthly usage.

<i>Purpose of water used</i>	<i>Monthly Consumption</i>	<i>High and Low Monthly Usage</i>
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

3. If the organisation's activities discharge wastewater, have these discharges been identified, measured and recorded?

- Yes (Please submit a copy of the 3 last consecutive results of analysis of effluent, if available.)
- No

4. Does the organisation comply with relevant standards of wastewater discharges, including

discharge of effluent –	Yes	No
(a) into the wastewater system	<input type="checkbox"/>	<input type="checkbox"/>
(b) onto land, underground, and into surface watercourse	<input type="checkbox"/>	<input type="checkbox"/>
(c) for irrigation purposes	<input type="checkbox"/>	<input type="checkbox"/>
(d) from the sugar industry	<input type="checkbox"/>	<input type="checkbox"/>
(e) into the ocean	<input type="checkbox"/>	<input type="checkbox"/>
(f) Others (please specify)	<input type="checkbox"/>	<input type="checkbox"/>

.....  
 .....

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5. Does the organisation hold the relevant permit or licence to discharge its effluent?

- Yes (Please specify type of permit/licence, date of issuance and reference)

.....

.....

.....

- No

6. Does the organisation treat its wastewater before discharging it?

- Yes (Please describe the type of treatment in place (screening, pre-treatment, primary, secondary, etc.)

.....

.....

.....

- No (Does the organisation make any effort to reduce the pollutants in the wastewater, e.g. waste minimisation, clean technology, etc.? Please describe briefly.)

.....

.....

.....

## LAND USE

1. Does the organisation comply with all applicable laws on land use, namely –

Town and Country Planning Act/Planning and Development Act (for zoning)

Local Government Act (for Building and Land Use Permit from local authorities)

Forests and Reserves Act 41 of 1983

Sugar Industry Efficiency Act (for land conversion permit if land was previously under agriculture)

Environment Protection Act 2002, (for EIA Licence or approval of a PER if the activity is a scheduled one under the Environment Protection Act 2002)

Others (please specify)

.....  
 .....

2. Is the organisation's site situated in an industrial zone?

Yes (Please name the zone)

.....

No (Please specify the place in which the site of the organisation is situated)

.....

3. Is there an environmentally-sensitive area (such as wetlands, nature parks, catchment area, river, sea etc.) in the vicinity of the organisation?
- Yes (Please indicate on the location map, the distance of the sensitive area from your organisation)
  - No

4. What percentage of land is occupied by built-up area (including parking space) within the premises of your organisation?
- .....

5. What kind of environmental protection measures does the organisation take in terms of land use (e.g. green belt, decorative plants, etc.)?
- .....
- .....
- .....
- .....

**SOLID WASTE**

1. Does the organisation keep records of the solid waste generated by the industrial activity?
- Yes
  - No
2. What type and amount of solid wastes does the organisation generate on its premises on a monthly basis? If the quantity of

waste fluctuates, please indicate the highest and lowest monthly quantities –

<i>Type of solid waste</i>	<i>Monthly Quantity</i>	<i>High and Low Monthly Quantities</i>
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

3. How does the organisation store the solid waste? Please briefly describe the type of solid waste –

<i>Type of waste</i>	<i>Means of Storage</i>
.....	.....
.....	.....
.....	.....
.....	.....

4. Does the organisation recycle, reuse or recover the waste produced?

Yes (Please give a brief description of the waste minimisation process in respect of each type of waste)

<i>Type of waste</i>	<i>Minimisation Process</i>
.....	.....
.....	.....
.....	.....
.....	.....

No

5. Does the organisation sell or give the solid waste as by-products?
- Yes (Please state who buys or takes the waste and for what purpose.)
- .....
- .....
- No
6. Does the organisation ensure that the waste is safely disposed of at an official disposal site?
- Yes (To which disposal facility?).....
- No
7. Does the organisation comply with existing regulations and conditions of EIA licence or an approved PER, if applicable, when processing, treating or disposing of any solid waste on site?
- Yes  No

**HAZARDOUS SUBSTANCES USED AS RAW MATERIALS**

*(as listed under the Dangerous Chemicals Control Act 2004)*

1. What kind of hazardous substance does your organisation use? If the quantity of hazardous substance fluctuates, please indicate the highest and lowest monthly quantities -

<i>Type of hazardous substance</i>	<i>Monthly Quantity</i>	<i>High and Low Quantities</i>
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

2. Does the Material Safety Data Sheet or other equivalent safety data sheet for the above hazardous substance include information related to environmental safety.

- Yes  No

3. Are hazardous substances ordered on an as-needed basis to avoid stockpiling?

- Yes  No

4. Are all the hazardous substances -

	Yes	No
(a) clearly labelled	<input type="checkbox"/>	<input type="checkbox"/>
(b) easily identifiable	<input type="checkbox"/>	<input type="checkbox"/>
(c) regularly inspected for container leaks, corrosion, rupture or other failures	<input type="checkbox"/>	<input type="checkbox"/>
(d) inventoried	<input type="checkbox"/>	<input type="checkbox"/>

5. Are all hazardous substances properly -

	Yes	No
(a) stored	<input type="checkbox"/>	<input type="checkbox"/>
(b) handled	<input type="checkbox"/>	<input type="checkbox"/>

Yes (Please briefly describe how)

.....  
 .....

6. How were the containers, previously containing hazardous substances, disposed of?

.....  
 .....  
 .....



7. How are obsolete hazardous substances disposed of?

.....  
 .....  
 .....

8. Are the environmental risk for spill, leak and other accident minimised during the handling of hazardous substances?

- Yes  No

9. Does the organisation have a contingency plan for -

- |  | Yes                      | No                       |
|--|--------------------------|--------------------------|
| (a) emergencies (fire, natural calamities, etc.) | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) spill prevention                             | <input type="checkbox"/> | <input type="checkbox"/> |

10. Does the organisation reduce or plan to reduce the use of hazardous substances by substitution with other less hazardous substances or non-hazardous substances?

- Yes (Please state which hazardous substances are substituted and by which other substitutes).

.....  
 .....  
 .....

- No (Please state whether -

- |                                    | Yes                      | No                       |
|------------------------------------|--------------------------|--------------------------|
| (a) it is not cost-effective       | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) it is technically not feasible | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) substitute is not available    | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) Other (please specify).....    |                          |                          |

11. If fuel or hazardous substances are stored above ground or underground, please state whether the tanks are regularly checked for safety, leakage and structural integrity. If yes, what is the frequency of inspection and by whom?

Yes  No

**HAZARDOUS WASTES**

*(as specified under the First Schedule to the Environment Protection (Standards for Hazardous Wastes) Regulations 2001)*

1. Please state the type of hazardous wastes that your organisation generates. If the quantity of hazardous wastes fluctuates highly, please indicate the highest and lowest monthly quantities -

<i>Type of hazardous waste</i>	<i>Monthly Quantity</i>	<i>High and Low Quantities</i>
.....	.....	.....
.....	.....	.....
.....	.....	.....

2. Are the hazardous wastes segregated from the non-hazardous wastes?

Yes  No

3. Are the hazardous wastes packed and labelled?

Yes (Please specify how.)

.....

.....

.....

No

4. How and where are they stored?

.....  
.....  
.....  
.....

5. Does the organisation keep track of the transportation route of the hazardous wastes from its premises to their final destination?

- Yes (Please indicate the type and quantity of hazardous wastes transported, and their disposal sites)

Type of hazardous waste .....

Quantity of hazardous waste .....

Disposal Sites .....

- No

6. Does the organisation presently reduce, reuse or recycle the hazardous wastes or is it planning to do so?

- Yes (Please briefly describe the process and the approximate date of implementation).

Process: .....

.....

Date of implementation:

.....

- No

7. Does the organisation -

	Yes	No
(a) process hazardous wastes	<input type="checkbox"/>	<input type="checkbox"/>
(b) treat hazardous wastes	<input type="checkbox"/>	<input type="checkbox"/>
(c) dispose of hazardous wastes	<input type="checkbox"/>	<input type="checkbox"/>

Yes (Please briefly describe how they are processed, treated and disposed of.)

.....  
 .....

8. Does the organisation comply with the Environment Protection (Standards for Hazardous Wastes) Regulations 2001?

Yes  No

9. Does the organisation comply with the Environment Protection (Collection, Storage, Treatment, Use and Disposal of Waste Oil) Regulations 2006?

Yes  No

10. Does the organisation have any waste exchange programme with other organisations?

Yes (Please specify detail of the programme)  No

.....  
 .....

11. Does the organisation have clearly defined procedures for preventing -

Yes No

(a) spills

(b) leaks

Yes (Please briefly describe the procedures put in place - you may attach documentary evidence)

.....  
.....

**DECLARATION**

I/We, ....., the undersigned, declare that the particulars in this report are true and accurate and that I/we have not wilfully suppressed any material fact.

Date ..... Signature .....

\_\_\_\_\_

**FOURTH SCHEDULE***(regulation 2)***INFORMATION TO BE INCLUDED IN THE INDUSTRIAL  
WASTE AUDIT REPORT**

1. Introduction
  - (1) Name of organisation.
  - (2) Address of organisation.
  - (3) Location of site where activity is carried out.
  - (4) Site description -
    - (a) construction (material of building and date of construction);
    - (b) specify whether built for general purpose or specific or other purpose;
    - (c) property condition (specify frequency of maintenance); and
    - (d) historical activity of site (if any) prior to present activity.
  - (5) Renewal date of trade licence.
  - (6) Start of operation of activity at current site (month and year).
  - (7) Brief description of activity.
  - (8) Name of person responsible for the operation of the plant.
  - (9) Unit responsible for control of pollution.
  - (10) Hours of operation of activity per day (starting and finishing time).
  - (11) Nature of complaints received (e.g. noise, air, odour) from neighbours, NGOs, workers or others, if any.

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2. Characteristics of the site

Location and site plan of a suitable scale indicating among others -

- (1) land use around site (e.g. industrial, commercial, residential, agricultural, forestry, leisure).
- (2) hydrology and hydrogeology including depth of water table (borehole, aquifer and others) and presence of watercourses including directional flow.
- (3) storm water drains.
- (4) discharge point of effluent.
- (5) discharge points of atmospheric emission.
- (6) prevailing wind direction.
- (7) fallout zones of atmospheric emission.
- (8) temporary storage of wastes.
- (9) slope and topography.

3. Activities of organisation

(1) Input -

- (a) annual quantity of raw materials used and the manner in which they were stored for the last 12 months;
- (b) annual quantity of energy or fuel used such as electricity, diesel, gas, and coal for the last 12 months; and
- (c) annual quantity of water consumption, specifying where it is mostly used for the last 12 months.

(2) Output -

- (a) type and name of product manufactured for the last 12 months; and
- (b) type and name of any by-product manufactured for the last 12 months.

4. Process flow diagrams

Detailed description of the process flow chart and mass balance, indicating the -

- (a) points of discharge of liquid effluents;
- (b) points of atmospheric emissions;
- (c) solid waste generated; and
- (d) hazardous waste generated.

5. Process discharges

(1) Atmospheric emission -

(gaseous, fumes, vapours, dust, odour)

- (a) nature and composition of the emission at point of discharge (identifying the harmful properties and specifying unit. (e.g. ppm, mg/Nm<sup>3</sup>, m<sup>3</sup>/hr);
- (b) Flow discharges -
  - (i) % of discharges through chimney; and
  - (ii) % of uncontrolled releases;
- (c) Identification of -
  - (i) monitoring systems (describe methods, frequency and pollutant parameters monitored); and



- (ii) control equipment (list all air pollution control equipment with capacity and efficiency).

(2) Effluent -

- (a) volume and composition of the effluent at the point of final discharge;
- (b) state whether effluent is discharged in -
  - (i) public utility sewers;
  - (ii) storm water systems;
  - (iii) drains;
  - (iv) holding ponds (lined, unlined, flocculent usage);
  - (v) waterbodies such as stream, river and sea;
  - (vi) absorption pits;
  - (vii) external treatment facility; and
  - (viii) any other site.
- (c) Description of -
  - (i) the pre-treatment facility and its capacity; and
  - (ii) the monitoring systems, including sampling frequency and laboratory analyses.

(3) Solid waste -

- (a) composition and quantity of non-hazardous waste generated on a monthly basis; and
- (b) disposal methods, including quantity incinerated or transported to landfill and recycled.

- (4) Hazardous waste -
  - (a) composition and quantity of hazardous waste generated on a monthly basis; and
  - (b) method of storage and disposal.
- (5) Environmental noise and vibration -
  - (a) identification of the sources of excessive noise and vibration;
  - (b) the maximum noise levels in decibels ( $\text{dBA}_{\text{Leq}}$ ) at the boundary of the premises; and
  - (c) description of any control measures in place.
6. Material-handling on site
  - (1) Liquid and gas -
    - (a) list of chemicals including fuel and identification of the harmful properties;
    - (b) description of method of storage for each chemical and fuel used;
    - (c) identifying the extent of storage and piping system, including -
      - (i) age and corrosion protection of the system;
      - (ii) monitoring inspection of systems;
      - (iii) current condition of the system;
      - (iv) quantities of chemical and fuel in storage system;
      - (v) bunding of tanks;
      - (vi) valve, discharge and loading points; and
      - (vii) protection against fire.

(2) Solid -

- (a) list of chemicals and identification of the harmful properties; and
- (b) description of methods of storage and handling techniques for each chemical.

(3) Contingency plan -

identifying the risks against fire, weather perils and accidental spills.

7. Operational performance

- (1) Any prosecution and conviction for offences relating to environmental issues, with dates.
- (2) Any order or direction given by any authority to clean-up, or modify operations to avoid or diminish any environmental impact at the site where the activity is carried out, with dates.
- (3) Any actual or potential litigation in respect of injury caused to any person or damage caused to any property, or interference with their rights in respect of property in consequence of any environmental impairment at the site where the activity is carried out.

8. Further information

Any other information which the organisation deems relevant.

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