Egyptian Environmental Affairs Agency (EEAA)

EPAP II Technical studies
Part III - Compliance Action Plan (CAP)

August 2009

Egyptian Pollution Abatement Project (EPAP II)

Compliance Action Plan

(to be prepared in Arabic and English)

1. General information about the factory

Factory Name:	**Industrial Code:**	
Address:		
Chairman Name:	**Public sector/Private/**	
Contact Person:	**Title:**	
Phone No:	**Fax No:**	
No. Of Workers:	**No. Of shifts:**	**Operating Year:**
Period covering the following information: from / / 200 to / /200		
Main Products:		
Year established:		
Available licenses:		
Surrounding area:		

- Google map showing factory site and surrounding area

2. Main production processes

2.1. Process description

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2.2. Process flow diagrams

2.3. Raw materials, Products and Utilities

Raw materials	**Current Consumption, t/y**

Utilities	**Usage**	**Consumption, m3/y**	**Source**
Water	Domestic		
	Cooling		
	Process		
	Other		
	Type	**Consumption /y**	

Fuel	Mazot (fuel oil), t/y	
	Solar (diesel oil), t/y	
	Natural gas, m3/y	
	Source	**Consumption**
Electricity	National Grid	
	Self generated	
Products		**Actual Average Production, t/y**

3. Description of Service Units

Type of service unit	Brief Description
Water treatment	
Steam boilers	
Cooling towers	
Wastewater treatment	

4. Current environmental status

- Plant layout showing emissions and discharge points

4.1 Air emission

Stack emissions for boilers, furnace and electrical generator and other processes -Combustion sources (limits given in table 5 of annex 6) and for non- combustion sources (limits given in table 2 of annex 6)

Parameter	Emission (m^3/year)	Concentration (ppm or mg/m^3)	Pollution load (tons/year)	Law limit (ppm or mg/m^3)
Co				
Co_2				
No_x				
So_2				
Excess Air				
Efficiency				
O_2 %				
Stack temperature				

For each table: Type of fuel and Height of stack:

Dust emissions: Point source emissions limits given in Table 1 of the ER

Sources	Concentration (ppm or mg/m^3)		Law limits (ppm or mg/m^3)	
	Tsp	PM10	Tsp	PM10

4.2 Work environmental emissions

Noise (Annex 7 of ER)		
Location	**Average level (db)**	**Law limits (db)**

Dust (Tsp, PM10) (Annex 8 pre-table 1 of ER)				
Location	**Concentration (ppm, mg/m^3)**		**Law limits**	
	Tsp	**PM10**	**Tsp**	**PM10**

Gases and vapors (Table 1 Annex 8 of ER)			
Location	**Pollutant**	**Concentration (ppm or mg/m$^{3)}$**	**Law limits (ppm or mg/m^3)**

4.3 Wastewater (end-of-pipe)

Indicators	***Discharge(m^3/year)**	**Concentration (ppm)**	**Pollution load (tons/year)**	**Law limits**
pH				
BOD				
COD				
TSS				
Heavy metal				
Others				

4.4 Hazardous Material

Type	**Quantity (tons/year)**	**Management**

4.5 Solid Waste

Source	**Solid classification**	***Annual Quantity (ton)**	**Management**

4.6 Hazardous waste

Source	**Hazardous waste classification**	***Annual Quantity (ton)**	**Management**

5. Existing pollution Abatement units

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6. Non-compliance issues

This section should present a summary of non-compliance issues as concluded from previous tables

7. Causes for non-compliance and planned solutions

Based on the non-compliance issues identified in section 6 describe what causes these issues. In a certain location, emissions in workplace for example, can be caused by a number of sources.

Planned activities to reach compliance should be explained. Sometimes more than one activity can be performed to reach compliance (e.g. in a paper factory TSS in WW has been reduced first by fiber removal and recycling, then by treatment).

The following categories should be addressed according to need:

1. Air emissions.
2. Wastewater.
3. Work Environment.
4. Hazardous materials & hazardous wastes.
5. Environmental Register

8. List of Sub-Projects

The projects identified in the previous section should be listed in the following table:

	Sub-Project Name	Cost	Type	Duration
1				
2				
3				
4				
5				

9. Sub-Project Requirements

Please fill the following table for each sub-project with special emphasis on the sub-project description

Sub-Project Name:	
Sub-Project Description:	
Sub-Project Cost:	
Source of finance:	
Economic Benefits:	
Environmental Impacts:	

10. Environmental management of CAP

1- Work team responsible for CAP implementation.
2- Distribution of Responsibilities.
3- Resources of work team.

11. Action plan

The information collected in the previous sections is used to fill the table below for non-compliance issues and related actions

1. Non-compliance issues and related actions

Non Compliance Issues and Actions	Estimated Investment, Thousand LE	Year 1	Year 2	Year 3	Year 4	Year 5	Environmental Outcome	Economic Benefits
Issue # 1 BOD in the effluent								
Action 1 Installation of Fiber Recovery Unit	200						BOD concentrations reduced from 200 mg/l to 30 mg/l	Recovery of fiber increasing throughput by 5%
Action 2 Expanding Aeration Tank	150						BOD	
Issue # 2 Particulate matter from Stacks								
Installation of Bag Filter								
Investment to be budgeted	350							
Funding to be sought from other sources	200							