Case Summary

Amreya Cement Company (AMCC-line 2)

Company Information:

Contact Person:	Mr. Luis Fernandes
Position:	Managing director
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Sector:	Private
Project Title:	Revamping of line 2 - "Replacement of EP's for raw mill/kiln & cooler to bag house filter in line 2"
Type of Project:	Air pollution control.

1. **Basic Information**:

1.1 **Main Products:**

Products	Ton/year
Portland cement	2,409,000
Clinker (Intermediate)	212,8000

1.2 **Raw Materials and Utilities:**

Raw Materials:	
Limestone	1,954,996 t/y
Clay	698,885 t/y
Iron	23,455 t/y
Gypsum	70,802 t/y
Energy:	
Mazout	132000 (t/y)
Electricity:	
National grid	349541570 kw/y
Self generated	-
Water:	
Domestic	125000 m3/y
Cooling (make up water)	225000 m3/y
Fire fighting system	150000 m3/y

1.3 **Project Location**:

El Garbaneyat Borg El Arab City, Alexandria-Egypt, The factory is located in an area, Currently designated as an industrial area.

1.4 **Project Objectives:**

- Reduction of dust emissions (TSP) in (Kiln/RM) for the year 2010 to comply with the Environmental law 4/1994 and other environmental regulation.

- Emission load before and after implementation the project **based on online monitoring data in EEAA and design parameter for new bag filter** :

Parameters	Before the project (t/y)	After the project (t/y)	Reduction %
Dust	1061	52.61	95

1.5 Project Description:

- AMCC Line 2 (designed by Polysius) has one clinker line constituted by one rotary kiln, one pre-heater (four stages), one ID fan, one GCT (gas conditioning tower), one grate clinker cooler and two horizontal ball mills. Normal operation fuel is heavy fuel. Nowadays this line is a copy of line 1 which is installed aside. The kiln and the raw mills are de-dusted by two independent EP (electrostatic precipitator). Usually, even if one mill is stopped, all gases pass through both EPS. After each EP there exists one fan that transports the gas flow to main stack. The dust collected at EP is transported by air slide (two: one from mill 3 and the other from mill 4) until homo silo bucket elevator or as alternative, directly to kiln feed by screw conveyer

- The EPs will be replaced by new bag filters as dedusting systems. There are two areas for installing the new bag filters:

  1) **Raw Mill/Kiln:** Supply two complete bag filters on same location of existing EPs (EPs will be dismantled) for raw mills/kiln, new dust conveying system under bag filters and reusing remaining existing dust conveying system, replacing existing fans and reusing existing stack inlet; **should be considered a mixing chamber** to allow keeping gas temperature above dew point, even if one of the mills is stopped (with one mill stopped the gases continue to go through both bag filters);

  2) **Cooler**: Design, supply, Install and commissioning a complete bag filter with new dust conveying system, new fan and reusing existing stack inlet.

- For compressed air plant is out of scope. Owner will build a brand new compressor room and network for filters supply. A buffer tank (3.000 l) shall be installed by Owner on top of each filter. Bidder has to define the quantity and quality of compressed air required and forecast a location for buffer tank. Bidder must also define the suitable compressors characteristics to let Owner buy it.

1.6 Project Components

Fabric Bag filters and auxiliary equipment	
Mechanical equipment	Compressors,dryers,valves, conveyers
Electrical equipment	Air flow meters, level detectors, solenoid valves
Control devices	Switches, rotating control sensors

1.7 Project Cost:

Estimated of total Cost is US$ 65 million EPAP II financing US$ 7 million.

1.8 **EPAP II Technical Support**:

EPAP II PMU assisted the company in preparing:

- Tender document.
- The bid evaluation report and procurement procedures.

2. **Eligibility Criteria:**

2.1 **Environmental:**

- The project will allow the company to comply with the law regarding dust emissions. Reduction in load will reach 95% and a concentration will decrease to 20 mg/m^3

2.2 **Financial aspects:**

- The project costs less than US$ 8 million

3. **Current status of project procedures:**

3.1 **Steering committee approval: Approved**

3.2 **Co-financers approval: N/A**

3.3 **Technical Procedures:**

Technical Document	submitted	Approved	Date
Environmental Assessment	Y	Y	Jan2011
Compliance Action Plan (CAP)	Y	Y	Sep 2008
Environmental Impact Assessment (EIA)	Y	Y	Oct 2011
Technical Agreement	Y	Y	Sep2011

3.4 **Implementation Procedures:**

3.4.1 **Procurement Procedures:**

The company follows the company Commercial practice to issue Competent Commercial Practise (CCP) (1 stage bidding) for Replacement of EP's for raw mill/kiln & cooler to bag house filter in line 2 (3 Bag Filters)

3.4.2 **Status of Implementation:**

Technical Document	submitted	Date	
		Achieved	Planned
Credit worthiness certificate	Y	15-6-2008	
Financial Agreement	N		Feb11
Bidding document	Y	15-11-2010	
Technical and financial Evaluation	Y	6-12-2010	
Contracting	Y	25-7-2011	Apr 11
Installation and Commissioning	N		May 12
Monitoring: Q1:			