

Case Summary

General Company for Paper Industry (RAKTA)

Company Information:

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Position: Managing director
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Sector: Public
Project Title: "Fuel switching of boilers (4&5) from using Mazout into natural gas"
Type of Project: Air pollution control.

1. Basic Information:

1.1 Main Products:

Products	Ton/year
Writing and printing paper	10144
Kraft , fluting and test line	32921
Multi – layered board	10817

1.2 Raw Materials and Utilities:

Raw Materials:	
Sorted recycled papers	59069 (t/y)
Long fibber wood pulp	2949 (t/y)
short fibber wood pulp	9.018 (t/y)
Alum	2321 (t/y)
Rosin	308 (t/y)
Energy:	
Mazout	60000 (t/y)
Solar Oil	60000 (t/y)
Electricity:	
From outside grid	289654949 kwh
Generated inside	69800000 kwh
Water:	
Filtered	2500000 m ³
Deionised & Drinking	2500000 m ³

1.3 Project Location:

The company is located in El-Tabia area, Rashid road, Alexandria, Egypt. It is overlooking Abu Quir Bay, 30 km east of Alexandria.

The factory is located in an area, currently designated as a residential area. At the North: Abou Qir Bay, to the west: residential area and Alex-Rashid rail way. On the east: Abou Qir Fertilizer Company & Alex Fertilizer Company, while to the South: Alex – Rashid road.

1.4 **Project Objectives:**

- *Reduction of the gas emissions of (SO_x, CO₂, NO_x, CO) to comply with the Environmental law 4/1994 and other environmental regulation.*
- *Emission load before and after implementation the project will be:*

Parameters	Before the project (t/y)	After the project (t/y)	Reduction %
Sulphur Dioxide (SO ₂)	521.284	Nil	100
Carbon Dioxide (CO ₂)	80514	40257	50
Carbon Monoxide (CO)	1342	Nil	100
NO _x	121.654	60	50
Dust	169	Nil	100

1.5 **Project Description:**

- *The sub-project consists of switching Mazout to NG for two boilers (Boiler 4&5) which consume 60000 tons of Mazout per year.*
- *The smaller boilers will not be included in the project.*
- *The project will be implemented within the boilers house.*
- *The project requires extending an external gas piping network, as well as an internal network within the facility.*
- *The burners will also be replaced. For each boiler 4 burners will be replaced complete with control panels, safety devices, control valves, indicators and all fittings.*
- *Boilers will be rehabilitated (super heater, Flue Gas air heater and economizer).*
- *A pressure reduction station for NG has to be installed.*
- *The sub-project will eliminate the emission of SO₂ with reduction in CO, CO₂ emissions.*
- *Also, the dust emissions (ash) will be eliminated as a result of implementing the sub-project.*
- *The Installation will be done by Gasco and Egypt Gas Company.*

1.6 **Project Components**

No	Item name	Cost, as read out
1	Internal N.G Pipeline	32545506 L.E
2	External N.G Pipeline	2394000 L.E
3	Boilers rehabilitation (Thyssenkrupp Contract)	2222995 Euro

1.7 **Project Cost:**

Actual Cost is US\$ 4.62 million. EPAP II will be financing US\$ 3.95 million.

1.8 **EPAP II Technical Support:**

EPAP II TA has prepared the Audit and a local consultant was assigned to prepare:

- *Compliance action plane (CAP)*
- EPAP II PMU assisted the company in preparing:*
- *Tender document according to WB standard bidding document.*
 - *The bid evaluation report and procurement procedures.*
 - *Contract between the company & the bidder.*

2. Eligibility Criteria:

2.1 Environmental:

- *By switching from mazout to natural gas & the rehabilitation of the boilers it is expected that it will become compliant with Law 4 for the Environment with an estimated reduction in pollution loads as follows:*
 - *100% reduction of SO2*
 - *50% reduction of CO2*
 - *100% reduction of CO*
 - *50% reduction of NOx*
 - *100% reduction of Dust*

2.2 Financial aspects:

- *The project costs less than US\$ 8 million*
- *The payback period of the project is 6 months.*

3. Current status of project procedures:

3.1 Steering committee approval: Approved

3.2 Co-financers approval: Previous no-objection for all Fuel switching projects

3.3 Technical Procedures:

Technical Document	submitted	Approved	Date
Environmental Assessment	Y	Y	May 2009
Compliance Action Plan (CAP)	Y	Y	May 2009
Environmental Impact Assessment (EIA)	Y	Y	Apr. 2009
Technical Agreement	Y	Y	Sep. 2009

3.4 Implementation Procedures:

3.4.1 Procurement Procedures:

- *The company follows the EPAP II standard (Single stage bidding documents) to issue National Competitive Bidding (NCB) for supply on 1/6/2008, installation and commissioning of the project "Fuel switching of boilers (4&5) from using Mazout into natural gas".*
- *According to previous no-objection for all fuel switching project, direct contract for internal & external piping.*
- *The Project start up in June 2010 and takes its grant in June 2011.*

3.4.2 Status of Implementation:

Technical Document	submitted	Date	
		Achieved	Planned
Credit worthiness certificate	Y	Mar. 2008	
Financial Agreement	Y	Jul. 2009	
Bidding document	Y	May 2008	
Technical and financial Evaluation	Y	Jan. 2009	
Direct contract (Internal Piping) with Misr Gas	Y	Mar. 2009	
Direct contract (External Piping) with Town Gas	Y	Apr. 2009	
Awarding and Contracting	Y	May 2009	
Installation of External piping	Y	Feb. 2010	
Installation and Commissioning	Y	May 2010	
Monitoring: Q1:	N	Jun.2010	
Q2:	N	Oct. 2010	
Q3:	N	Feb. 2011	
Q4:	N	Jun. 2011	