

Case Summary

Universal Group – Gas Cookers Production Factory

Company Information:

Contact Person: Eng /Khalil El Bargouthy
 Position: Factory Manager
 Telephone: 0101673382 - 01515097070
 Fax: 02-38335130
 Sector: Private
 Number of labors: 1200
 Project Title: Installation of Workplace Pollution Control System
 Type of Project: Work environment improvement

1.Basic Information:

1.1 Main Products

Products	Actual Average Production, t/y
Cookers (Packed and Plated)	10,155

1.2 Raw Materials&Utilities

Raw materials		Current Consumption, t/y	
Black steel sheets		7200	
Stainless steel sheets		1200	
Galvanized steel and Aluminized sheets		1440	
Thermal glass		1728	
Cardboard		240	
Packing foam		60	
Wood		60	
Hcl		18	
H2So4		48	
Enamel powder		140	
Wet enamel raw material		700	
Electrostatic powder		90	
Zinc phosphate		12	
Sodium Hydroxide		18	
Sodium Meta-bi Sulphide		18	
Sodium Hypo-Chloric		9000 Litre	
Utilities	Usage	Consumption, m³/y	Source
Water	Domestic	15,000	Main Six of October City Network
	Cooling	466	
	Process	45,000	
	Other	2,000	
	Type	Consumption /y	
Fuel	Mazot (fuel oil), t/y	-----	
	Solar (diesel oil), t/y	-----	
	Natural gas, m3/y	275,000	
	Source	Consumption	
Electricity	National Grid	16,128 kw	
	Self generated	-----	

1.3 Project Location:

6th of October Industrial city – Giza Governorate

1.4 Project Objectives:

- Elimination of Work place dust emissions to comply with environmental law.
- Removing of chemical vapor emissions
- Minimize losses in raw Material.
- Protect of workers health.

1.5 Project Description:

The project aims to reduce Gaseous emissions at the Surface Treatment Unit and the Surface Treatment Tunnel. Expected emissions from the treatment bath are: Sodium hydroxide, Potassium hydroxide, Sulphuric acid, Sulphur dioxide, and Nitrogen dioxide and Water Vapor level. The purpose of the project is to reduce the emission level at the workplace the cumulative effect of fugitive vapours is hazardous to the workers and corrosive to the steel structure of the factory. Also the project will remove TSP and PM₁₀ Levels at the Main Spray cabinet and at the Enamel Powder Cabinets.

1.6 Project Components:

- Dust collection system at the exit of the two enamel painting cabins.
- Acidic and alkaline vapours collection system shall be installed at the top of the surface treatment line.
- Ventilation system to improve the workplace condition especially surrounding the dryer and the curing furnaces.

1.7 Actual Project Cost:

Total project cost US\$ 0.15 M. EPAP finance is US\$ 0.135 M.

1.8 EPAP Technical Support:

EPAP II TA assisted Universal in preparing the Environmental audit and CAP. The PMU will assist the company in the preparation of bidding Document.

2. Eligibility Criteria

2.1 Environmental

- Vapours of chemicals used in the surface treatment process are emitted from the unit. Expected emissions from the treatment bath are: Sodium hydroxide, Potassium hydroxide, Sulphuric acid, Sulphur dioxide, and Nitrogen dioxide and Water Vapor level, most of these parameters are corrosive elements that have accumulative adverse effect on the workers' health. Furthermore, the corrosive nature of these elements is affecting the steel structure of the factory. TSP and PM₁₀ at the entrance of the cabinets, at the enamel spray belts where the powder is handled to the cabinet entrance. At this location the fugitive powder emission is un-controlled; it is dispersed to the work place from both cabinets' belts. The measured dust concentration is the average of four readings; at least one of those readings is considerably higher than the Law permissible limit. Heat Stress Level at the Curing Furnaces and Dryer Line area was measured. Heat Stress Levels is exceeding the permissible limit for the Egyptian Environmental Law No. 4 of 1994 and its Executive Regulations.
- The project will reduce raw material losses

2.2 Financial:

- Payback period: N.A

3.Current status of project procedures

3.1 Technical Procedures:

Technical Document	submitted	Approved	Date
Environmental Assessment	Y	Y	Dec 2011
Compliance Action Plan (CAP)	Y	Y	Dec 2011
Environmental Impact Assessment (EIA)	Y	Y	
Technical Agreement	N	N	NA

3.2 Implementation Procedures:

3.2.1 Procurement Procedures:

The company will follow its commercial practice (acceptable to EPAPII) to issue tender for Supply and Installation of the project equipment

3.2.2 Status of Implementation:

Technical Document	submitted	Date	
		Achieved	Planned
Credit worthiness certificate	Y	Feb 11	
Sub-loan Agreement	Y		
Bidding document (B.D)	Y		10/2/2012
Technical and financial Evaluation	Y		1/3/2012
Awarding and Contracting	Y		1/4/2012
Installation and Commissioning	N		Oct 2012
Monitoring: Q1:	N		Nov 2012
Q2:	N		Feb 2012
Q3:	N		June 2012
Q4:	N		Oct 2012