#### **Cabinet of Ministers**

**Egyptian Environmental Affairs Agency** 

**Egyptian Pollution Abatement Project (PMU)** 

رئاســة مجلـس الوزراء جهــاز شـنون البيئــة وحدة تنفيذ مشروع التحكم في التلوث الصناعي

# Case Summary Install a new Industrial waste water treatment plant in El Bawadi Company

#### **Company Information:**

Contact Person: Eng / Saad Zaghloul.

Position: Quality Assurance Manager. Telephone: 03/457761, 0125877744

Fax: 03/4597908
Sector: Private Company.
Number of labors: 250(Permanent)

Project Title: Installation of a new Industrial waste water treatment plant

(IWWTP).

Type of Project: end of pipe treatment.

1. Basic Information:

#### 1.1 Main Products:

| Main Products  | Actual Average production t/y |  |
|----------------|-------------------------------|--|
| Halwa & Tahina | 12000                         |  |

#### 1.2Raw Materials:

| Raw Materials  | Current Consumption, t/y |  |
|----------------|--------------------------|--|
| Sesame         | 4440                     |  |
| Sugar          | 4800                     |  |
| Saponaria root | 360                      |  |

#### 1.3 Project Location:

Plot no (4), block no(11),1stIndustrial zone, Borg El Arab City

### 1.4 Project Objectives:

The treated effluent design parameters will comply with the limits of Law No. 93/1962 and its supplemented Decree No. 44/2000, for discharging to the public sewer system.

#### 1.5 Project Description:

The wastewater is collected in an equalizing tank for homogenization then pumped to the Dissolved Air Flotation (DAF) system where appreciable amounts of fine suspended solids and oil and grease are removed leading to a great reduction of TSS, COD, BOD and oil and grease levels.

Treated effluent from DAF unit is discharged to public sewer as being within the allowable limits.

Sludge from DAF unit is then passed to the sludge holding tank, then pumped to the dewatering system.

## **1.6 Project Components:**

Chemical Treatment (300 m3/day)

- 1. Bar Screen
- 2. Fine Mechanical Screen
- 3. Equalizing Tank
- 4. Dissolved Air Floatation Unit (DAF)
- 5. Chemical dosing units
  - Chemical dosing pumps
  - Chemicals tanks
  - Polyelectrolyte preparation and dilution unit include

#### 1.7 Estimated Project Cost:

• The total estimated cost is US\$ 0.23 million with finance from EPAP II about US\$ 0.21 million.

#### 1.8 EPAP Technical Support:

- EPAP II TA had hired local consultant to prepare the following:
  - 1. Environmental audit.
  - 2. Compliance action plan (CAP).
- PMU assisted the company in tendering procedures, bid evaluation report and contracting.

#### 2. Eligibility Criteria

#### 2.1 Environmental:

After installing a new IWWTP, it is expected that BOD will be reduced by about 57% of the percent value also COD will be eliminated by 47%, TSS will be reduced by 16.23% and then the waste water stream will be in full compliance with the Law.

| Parameters Load, tons/yr. |        | ons/yr. | Pollution load | Percent load |
|---------------------------|--------|---------|----------------|--------------|
| 1 arameters               | before | after   | reduction      | reduction    |
| BOD                       | 113.85 | 49.5    | 64.35          | 56.52%       |
| COD                       | 171.6  | 90.75   | 80.85          | 47.11%       |
| TSS                       | 78.78  | 66      | 12.78          | 16.22%       |
| Total load                | 364.23 | 206.25  | 157.98         | 43.37%       |

#### 2.2 Financial:

- The sub project costs are less than US\$ 0.5 million.
- No economic benefits (end-of-pipe)

#### 3 Current status of project procedures

3.1 Steering committee approval: NA 3.2 Co-financers approval: NA

## 3.3 Technical Procedures:

| Technical Document                   | submitted | Approved | Date     |
|--------------------------------------|-----------|----------|----------|
| Environmental Assessment             | Y         | Y        | May,2010 |
| Compliance Action Plan(CAP)          | Y         | Y        | May,2010 |
| Environmental Impact Assessment(EIA) | Y         | Y        | May,2010 |
| Technical Agreement                  | N         | N        |          |

# 3.4 Implementation Procedures:

# 3.4.1 Procurement Procedures:

Investment cost less than US\$ 500,000; procurement will be done by shopping. The Company issued a RFQ on April 29, 2010.

3.4.2 Status of Implementation:

| 5.4.2 Status of Implementation.     |             |            |               |
|-------------------------------------|-------------|------------|---------------|
| Technical Document                  | submitted   | Date       |               |
|                                     | Sublifitied | Achieved   | Planned       |
| Credit worthiness certificate       | Y           | 13/12/2009 | Dec,2009      |
| Sub- loan Agreement                 | Y           | 19/10/2010 | Oct,2010      |
| Bidding document(letter invitation) | Y           | 29/4/ 2010 | May,2010      |
| Technical and financial Evaluation  | Y           | 15/9/2010  | June,2010     |
| Contracting                         | Y           | 11/10/2010 | July,2010     |
| Installation and Commissioning      | Y           | Oct 2011   | February,2011 |