

Holds a B. Sc. in Chemistry and has over 25 years hands-on experience working as Chemist in Power Plants.

## **PERSONAL DATA**

Nationality : Egyptian  
Birth Date : 04/01/1968  
Gender : Male  
Marital Status : Married  
Residence : Alexandria

## **EDUCATION**

: B. Sc. in Chemistry, Alexandria University, 1990

## **LANGUAGES**

Arabic : Native Language  
English : Fluent

## **COMPUTER SKILLS**

: Windows, MS Office (Word, Excel, Access, Power Point), Internet

## **TRAINING COURSES AND CERTIFICATIONS**

- : Leadership Development Program (LDP) by Leadership development Center (LDC) - Ministry of Electricity (for 4 months from Dec. 2016 till Apr. 2017) in the following:
- Effective communication skills (40 hours).
  - Team building (40 hours).
  - Leadership (40 hours).
  - Personality and Motivation (40 hours).
  - Process analysis (80 hours).
  - Root causes analysis (40 hours).
  - Financial management (80 hours).
  - Effective management (80 hours).
  - Project management and Negotiation (80 hours).
  - Strategic planning (40 hours).
  - Change management (40 hours).
- : English course by the Leadership Development Center (LDC) - Ministry of Electricity.

- : Computer science course (MS Word, MS Excel, MS Power Point) by the Leadership Development Center (LDC) - Ministry of Electricity.
- : Computer courses (ICT, WINDOWS 7 AND ALL MICROSOFT OFFICE 2010) by Aseb Academy.
- : Preparation course for (International English Language Test System) IELTS by Aseb Academy.
- : Off-shore training by Metito Co. for one month in water and waste water treatment.
- : Training by the Italian Company E.M.I.T. in the following:
  - Water treatment.
  - Waste water treatment.
  - Polisher plants.
  - Sodium hypochlorite production.
  - Pumps and Valves.
- : Instrumentation process by Oil & Gas Skills Company (OGS) in the petroleum complex.
- : Properties and analysis of oils.
- : Safety and health specialist course by the National Institute of Occupational Safety and Health (NIOSH) (Apr./May 2010).
- : Desalination plants.
- : Cooling water systems.
- : Instrument air.
- : Compressors.
- : Boilers.
- : Natural gas chemical analysis course.
- : Project Management Professional (PMP) preparation course.

## CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From Jan. 2009 till now
- Project** : Sidi Krir Combined Cycle Power Plant (750MW)
- Job title** : Chief Chemist (commissioning & operation)
- Job Description** :
- Responsible for leading and managing power plants chemical treatment, water and wastewater treatment projects, with responsibility for organizational and technical requirements for water and waste water systems.
  - Commissioning and start-up operation for Sidi Krir Power Station module.
  - Plan and schedule activities required to accomplish the objectives of the product or project.
  - Manage, direct, produce and work with others to make sure that all systems and components are designed, installed, tested, operated and maintained according to the owner requirements.
  - Provide clear and effective guidance to consultants and contractors.
  - Provide engineering services and expertise to maintenance and operating managers.
  - Evaluate activities of assigned responsibilities, recommend improvements and modifications and prepare required reports about activities.

- Demineralization water plant:
  - PLC operation system.
  - 2 mixed bed - 65t/h.
  - Monitoring of demineralization water specifications.
  - Regeneration for demineralization water plants.
  - Storage during down time.
- Sodium hypochlorite plant:
  - PLC operation system.
  - Capacity = 2 x 100t/h with 2.5g/l concentration.
  - Monitoring of cell concentration during operation.
  - Chemical cleaning of the cells.
- Chemical treatment of combined cycle's plants:
  - Chemical injection during operation.

**Dates** : From Mar. 1998 till Jan. 2009

**Employer** : West Delta Electricity Production Company (WDEPCO), Egyptian Electricity Holding Company (EEHC)

**Project** : Sidi Krir Thermal Power Station  
(2x320MW - operating pressure = 166bar - operating temp. = 541°C - capacity = 1023 t/h - natural gas and mazout oil firing)

**Job title** : Senior Chemist (commissioning & operation)

**Job Description** :

- Pre-commissioning, commissioning and start-up operation for Sidi Krir Power Station.
- Responsible for all site utilities and aided as technical engineering resource for site utilities.
- Prepare and coordinate all chemicals needed for the plant during commissioning and start-up operation.
- Perform water chemical analysis during stages of pre-commissioning, commissioning activities, start-up operation, normal operation and shut down of the power plants.
- Familiar with operation of all equipments (pumps, valves, blowers, etc.).
- Outstanding knowledge of boilers operation.
- M.S.F. Desalination Plant:
  - DCS operation system - 20 stages - 5000 t/day.
  - Chemical injection during operation.
  - Monitoring and control for scale formation and corrosion.
  - Chemical cleaning for the plant.
- Demineralization water plant:
  - PLC operation system.
  - 3 mixed bed - 63t/h.
- Condensate polisher system:
  - PLC operation system.
  - Cation and MB regeneration.
- Chemical treatment of thermal power plants:
  - Chemical injection during pre-commissioning, commissioning, start-up operation and normal operation.
  - Regulate blow down to maintain water and steam quality in the proper conditions.
  - Perform water chemical analysis during operation.
  - Calibration for pH, Conductivity, Silica, Sodium analyzers that are present in the on line sample system.

- Chemical treatment for cooling water systems:
  - Once through cooling water system. Chemical injection of Sodium hypo chlorite and cathodic protection for the pump house bays and for the condenser.
  - Monitoring of residual chlorine in condenser outlet sea water.
  - Closed cooling water system.
- Chemical cleaning, passivation and storage for boilers:
  - Chemical cleaning with inorganic and organic chemicals followed by passivation, inspection and preservation.
  - Storage for boilers during down time.
- Chemical cleaning for heat exchangers:
  - Plate heat exchangers (PHE).
  - U shape heat exchangers.
- Sodium Hypochlorite plant:
  - Capacity = 3 x 55 t/h with 2g/l concentration.
- Boiler fireside treatment:
  - Injection of fuel additives in fuel lines upstream of the burner.
- Industrial waste water treatment plant:
  - PLC operation system.
  - Oil Separator, Floatator, Equalization, and Collectors, clear well and vertical sand filters.
  - Maintain the waste water outlet in the proper conditions according to the environmental laws.
  - Monitoring of acid dew point when mazout oil is used in firing.
- Continuous Emissions Monitoring System (CEMS):
  - Monitoring of emissions such as NOx, Sox, Carbon mono oxide, Carbon dioxide and Oxygen.
  - Monitoring of acid dew point.

**Dates** : From Jan. 1992 till Mar. 1998

**Employer** : West Delta Electricity Production Company (WDEPCO), Egyptian Electricity Holding Company (EEHC)

**Project** : Abu Qir Thermal Power Station  
(1x320MW - capacity = 1020 t/h - operating pressure = 165 bar - operating temp. = 540°C) + (4x150MW - operating pressure = 150 bar - operating temp. = 530°C - capacity = 500 t/h, natural gas and mazout oil firing)

**Job title** : Junior Chemist

**Job Description** :

- Prepare daily, weekly, and monthly reports of utilities operation and water analysis.
- Perform water analysis during the shift.
- Treatment of fresh water.
  - Pre-treatment system includes distributor, clarifier and gravity sand filters.
  - Three trains, each of them consists of an activated carbon, strong cation, weak anion, degasifier, strong anion and mixed bed.
- Chemical treatment for auxiliary boilers, demineralization plant, wastewater, and cooling water system.

**Field of experience** : • Working as a Chemist for over 25 years in revision of the design, construction supervision, pre-commissioning, commissioning, start-up operation and shut down of the following: Multi stage flashing

desalination plants (MSF), Industrial waste water treatment plants, River water treatment plants, Demineralization plants, Condensate polisher systems, Sodium Hypochlorite production plants, Hydrogen production plants and BOP systems of power plants.

- Water analysis, Turbine oil analysis, Transformer oil analysis, Natural gas analysis (GC). Calibration of laboratory. Instruments. Calibration of on line sample system instruments.
- Water side treatment of thermal power plants and combined cycle power plants. Fire side treatment of thermal power plants. Chemical cleaning, passivation and lay out for boilers. Chemical cleaning for desalination plants, heat exchangers of closed cooling systems and Sodium Hypochlorite plants. Chemical treatment for cooling water systems.
- Familiar with plant trouble shooting, analysis of problems, punch list preparation & clearance and assess the quantity of material and chemicals which are needed for projects.
- Train fresh graduated and experienced employees.