

Holds a B. Sc. in Chemistry and has 27 years hands-on experience working as Chemist at several projects.

## **PERSONAL DATA**

Nationality : Egyptian  
Birth Date : 01/08/1968  
Gender : Male  
Marital Status : Married  
Residence : Beni Suef

## **EDUCATION**

: B. Sc. in Chemistry, Cairo University, 1992

## **LANGUAGES**

Arabic : Native Language  
English : Very Good

## **COMPUTER SKILLS**

: Windows, MS Office, Internet

## **TRAINING COURSES AND CERTIFICATIONS**

- : Onshore advanced courses on operation at El-Kureimat Power Plant 2x650MW offered by BABCOCK & WILCOX Company.
- : Onshore advanced courses on the environmental laboratory operation and maintenance by Measurement Technologies INC RAYTHEON EBASCO Overseas Limited (REOL).
- : Offshore advanced courses on operation of both water treatment, water demineralization plant, Condensate polishing plant, Waste water treatment and sewage treatment by LURGI BAMAG GMBH, GERMANY.
- : Onshore advanced courses on D-M-S (data management system) operation by ABB SAE-SADILMI.
- : Onshore advanced courses for online analyzers for PH meters. Cation Conductivity and specification conductivity. Silica analyzers. Sodium analyzers and dissolved Oxygen by ABB KENT TAYLOR Co.
- : Onshore advanced courses at site offered by MITSUBISHI ELECTRIC on the dissolved gases on transformers oil analyzer model FAF operation, data analysis and transformer situation diagnoses.

- : Onshore advanced courses at site by ABB SAE SADILMI Company on operation and calibration of dissolved Hydrogen on transformer oil monitor AMS-500.
- : Onshore advanced courses by United States Agency for International Development (USAID), Institute of International Education (I.I.E.) and Egyptian electricity Authority (E.E.A) on El-Kureimat Power Station Plant Operation.
- : Onshore advanced courses at site by ABB SAE-SADILMI Company on operation, calibration and analysis samples for water quality by using Atomic Absorption spectrometer, Spectrophotometer, liquid chromatography, Gas chromatography, ICP, Particle quieter analyzer and NDIR.
- : Onshore advanced courses on SAFETY by Industrial Safety Institute.
- : Advanced courses on Fire Fighting systems operation and Emergency Plan preparation by Mechanical Engineers Agency.
- : Advanced courses in Instructors preparation and Instruction Programs preparation by Cairo South Networks Institute.
- : Offshore advanced courses on management program for El-Kureimat power plant water and waste water treatment organized by METITO Overseas Limited UAE.
- : Advanced Courses on preventive maintenance / life extension and advanced technology for steam & gas power plants and environmental improvement systems organized by the Association for Overseas Technical Scholarship (AOTS) and HITACHI, Ltd, JAPAN.
- : Offshore advanced courses on water treatment, waste water, sewage, demineralization plants for El-Kureimat combined cycle 750MW power plant organized by METITO Overseas Limited UAE.
- : ISO 17025 implementation by Emirates ERM Risk Management & Consultancy.
- : Internal audit by Dubai Accreditation Center (DAC).

## CHRONOLOGICAL EXPERIENCE RECORD

<b>Dates</b>	: From Aug. 2016 till now
<b>Employer</b>	: Upper Egypt Electricity Production Co.
<b>Project</b>	: South Helwan Supercritical Power Plant 3x650MW
<b>Job title</b>	: Lead Chemist
<b>Job Description</b>	: <ul style="list-style-type: none"> <li>• Follow up all chemical systems and water treatment plant in supercritical power plant, review chemical systems contracts, P&amp;ID,CDRs and prepare required reports, prepare air monitoring quality assurance project plan and review all air monitoring and environmental reports to insure its comply with the ARE environmental protection and World Bank requirements, supervise water treatment plant, Boiler Chemical feed system and condensate polishing plant erection, commissioning, start up and operation, all chemical laboratory analysis and review all data and reports, following up chemists activates and training. Make all calibration and required maintenance for laboratory instruments.</li> <li>• Perform Root Cause Analysis and maintain commissioning documents into CMS (commissioning management system) according to related procedures.</li> <li>• Develop lesson plans for Chemistry/Staff training classes.</li> </ul>

- Commissioning and Maintaining of Chemical systems such as Water/Waste Water Treatment Plants, Chemical Dosing System, Water Analysis System, Hypo-chloride Injection System, etc. and chemistry with all specs.
- Grab Sampling and online/offline comparison for steam analysis with these systems.
- Parameters Analysis for systems to verify these meet the Water & Steam quality.
- Safe Handling of chemicals such as HCL and Caustic and confirm safe loading-unloading and storage practices as per EPA and Safety Protocol.
- Commission and maintain chemical systems.
- Assure and confirm the Service water, Potable water, Demineralized Water and Steam Quality meets the standards.
- Commissioning of Equalization and Neutralization chemistry as per ARE environmental protection Protocol for outfall or discharge.
- Perform demonstrations with the owner and owners engineer as required.
- Demonstrate and solve the pending issues with the chemistry system and draft the reports as reply for chemistry related queries from the owner and owner engineer.
- Well versed in Laboratory Equipment for handling and performing Grab sample Analysis for confirm various chemistries.
- Well versed in record keeping, chemical stock management, Bulk storage, tendering formalities, supplier negotiation, document verification etc. for safe commissioning.
- The system owner is the technical authority on the system and will review work packs from a technical point.

**Dates** : From Oct. 2010 till Aug. 2016

**Employer** : Abu Dhabi Water and Electricity Authority (ADWEA)

**Project** : MIRFA International POWER Co. MIPCO (GDF-SUEZ)

**Job title** : Senior Chemist

**Job Description** :

- Follow up all chemical work in power plant and desalination plant, supervise all chemical laboratory analysis and review all data and reports as ISO 17025 requirements, following up chemists activities and training. Make all calibration and required maintenance for laboratory instruments.
- Well versed in record keeping, chemical stock management, Bulk storage, tendering formalities, supplier negotiation, document verification.
- Preparation of the Laboratories Department annual budget by proper coordination with the Finance Division.
- Preparation of the required environmental reports related to the power generation and water treatment plants (CEMS, waste management plan, chemical handling and disposal, etc.) and Coordinate with external stakeholders for all environment and Laboratories issues such as the Contractors, Abu Dhabi Municipality, Environment Authority, Civil Defense, RSB, etc.
- Preparing various Business Plans and monitor the progress of all the

KPIs on monthly basis for the Laboratory Department and submit periodic reports to Management.

- Coordinate with external stakeholders for all Laboratories issues such as the Contractors, AD Municipality, Environment Authority, Civil Defense, RSB, etc.
- Identify the learning, development and training needs of the Section.
- Set targets and standards of performance for Section members.
- Manage the performance of individual members of the Section.
- Maintain current knowledge of advances in laboratory technology, quality standards and applicable state/local regulations.
- Perform other duties and assumes other responsibilities as apparent or as delegated.

**Dates** : From Apr. 2010 till Oct. 2010  
**Employer** : New & Renewable Energy Agency (NREA)  
**Project** : El-Kureimat Integrated Solar Combined Cycle Power Plant 120MW (ISCC)  
**Job title** : Commissioning, Start-up, Performance and Turnover Manager  
**Job Description** : Make revision for all chemical works including Water treatment, waste water, water Demineralization plant, Boilers, Laboratory, Solar Field Steam turbine, cooling tower, and Stack emission monitoring system and make every check for all systems with Coordination with main contractor IBEREDROLA Co., and general consultant FISHENER GMBH.

**Dates** : From Jan. 2007 till Apr. 2010  
**Employer** : Upper Egypt Electricity Production Co.  
**Project** : El-Kureimat 2 Combined Cycle Power Plant 2x750MW  
**Job title** : Water Treatment & Lab Supervisor  
**Job Description** : Make revision for all water treatment, waste and sewage and laboratory P&I diagrams and operation manuals and check all instruments and equipments for any chemical systems and make training for both operation and lab chemists.

**Dates** : From Jan. 2001 till Jan. 2007  
**Employer** : Egyptian Operation and Maintenance Power Co. (EOMPC)  
**Project** : El-Kureimat Power Plant 2x650MW  
**Job title** : Laboratory, Safety and Environment Supervisor  
**Job Description** :

- Make required analysis for boilers water to adjust and control boiler water quality and internal water treatment for boilers and heaters using the following instruments. HPLC liquid chromatograph, Spectrophotometer model DR 2000, Milton Roy spectrophotometer, TOC total organic carbons, Atomic Absorption A.A, Gas Chromatography, ICP and NDIR. Oil content in boiler and reboiler water by NDIR, Measure particle Quinter by X-Ray.
- Following operation of condensate polishing System.
- Make required analysis to adjust the production quality of dematerialized water plant, Waste water and sewage treatment plant,
- Following operation of sampling system and online analyzer (Silica analyzers, sodium analyzer, conductivity meters, PH meters and

dissolved Oxygen analyzers) make calibration and prepare chemicals for online analyzers to control the boiler water, condensate and steam cycle quality.

- Following operation of chemical feed system (Ammonia, Hydrazine, Phosphate) to adjust chemicals feeding to the boiler water.
- Following operation for D-M-S (Data management system), which control chemical injection in boiler water, condensate and steam automatically according to the reading of online analyzers.
- Following calibration and operation of D.G.A (dissolved gases analyzer) with MITSUBISHI ELECTRIC Company, which analyze the dissolved gases in transformers oil and diagnose the fault in transformer according to the result of gas analysis.
- Following operation of dissolved Hydrogen in transformer; oil (Online).
- Make all required analysis for all equipments oil like turbine lube oils, EHC oil, start up, feed water, and Booster pumps, and all required analysis for fuel oil.
- Following the operation of Hydrogen which used in cooling of stator part of the generator and make required analysis to adjust chemical addition to the Hydrogen cells.
- Environment and Ambient air monitoring systems: Following operation of ambient air monitoring stations which include the following:
  - Sulfur oxides analyzer model LS/ MC 8850.
  - Particulate sampler model SAUV- 1SH.
  - Metrological monitoring instruments (Wind direction, wind speed, vertical wind speed and temperature) Nitrogen oxides analyzer model LS/ MC 8840.
  - Gas calibration model 2000 SA.
  - Data Acquisition Management system model DSM 3260 Plus make a calibration - (Daily and monthly) and daily. Weekly and monthly maintenance and takes the reading.
- Daily, Weekly and monthly, and collect data to prepare monthly and semi annual reports which contain concentration of pollutant, pollution rose. Wind rose and diagrams with explain the relations between pollutant, wind directions and wind speed and then analyzes this data to prepare annual reports to World Bank. Make installation for air monitoring station on Cairo North Power Plant Site and make training for operation and maintenance staff and how they can prepare reports.
- Following installation, Start-up and operation of on line (Stack) flow gases analyzers. Radas 2 (NO, SO<sub>2</sub>) HARTMANN and Braun, Uras 4 CO<sub>2</sub>, MAGNOS 6G O<sub>2</sub>, Land (Opacity and Dust).
- Water pollution.
- Following operation of water quality laboratory and make analysis of Nile water by using me following instruments ICP – A.A – IR, Spectronic 401, PH meter and conductivity meter and prepare quarterly and Semi annual reports.
- Safety Supervisor: Record of work incidents and make reports on safety performance, incident investigations, identifying hazards though hazard spotting, give safety training to operation staff, recommend suitable types of safety equipments and prepare safety committee meetings.

**Dates** : From Jan. 2002 till Apr. 2002  
**Employer** : LURGI-BAMAG GMBH  
**Project** : Shaikh Zaid, Potable water plant 500,000 M<sup>3</sup> / day  
**Job title** : Start-up & Commissioning Supervisor  
**Job Description** :

- Follow up construction of the plant and coordinate with our engineering.
- Directed the client chemists in performing all tests required supporting the operation of the plant, in addition the lab personal on adjusting the different dosing to meet the plant chemistry requirements.
- Follow up reliability test for chemical systems Alum, polymer & chlorine dosing.
- Writing and checking the operation procedures and alarm sheets for all chemical systems.

**Dates** : From Jan. 1994 till Aug. 2001  
**Employer** : Upper Egypt Electricity Production Co.  
**Project** : El-Kureimat Power Plant 2x650MW  
**Job title** : Water Treatment and Laboratory Chemist  
**Job Description** :

- Following the erection, Pre-commissioning start up and operation for water pretreatment system, which produce water for potable water. Service water and supply water to demoralized water system.
- Following the erection and operation of dematerialized water plant. Waste water and sewage treatment plant and make required analysis to adjust the production quality.
- Following erection and operation of chlorination system.
- Following erection and operation of chlorination system.
- Following chemical cleaning for boiler and high pressure heaters.
- Make chemical cleaning for boilers of Cairo North Combined Cycle power plant.

**Field of experience** :

- 27 years working experience in power generation and water and wastewater treatment (UF, RO, MSF) and expertise were on Chemical Treatment for high pressure large capacity and super critical boilers (650MW per unit) water and steam cycles for both steam and gas turbines and integrated combined cycle Solar power plants.
- Preparation of the required environmental reports related to the power generation and water treatment plants (CEMS, waste management plan, chemical handling and disposal, etc.) Transformers oil analysis and fault diagnosis by dissolved gases in transformers oil analysis.
- Chemical Laboratory managing in power generation and water treatment plants, Chemical Awareness and Safe Handling.
- Modern Chemical Laboratory: Analytical Instrumentation, Equipment.
- Calibration, Operations, maintenance, iso 17025 quality procedure, quality manuals, SOPs and WIM preparation, Quality controls as ISO 17025 requirements & Safety, environment and Monitoring desalination plant.
- Responsible for leading the daily Water, wastewater treatment and laboratory activities, delegating tasks and Responsibilities among the water treatment and laboratory team, selecting and ordering required materials and Equipment's for the work of water treatment plant and

laboratory, collecting and gathering the required data for the daily operation and laboratory report to management. Also, I provide Chemical Handling and Storage courses to all employees at work and develop lesson plans for Operator/Staff training classes.

- Perform Root Cause Analysis and maintain commissioning documents into CMS (commissioning management system) according to related procedures.
- Commissioning and Maintaining of Chemical systems in power plants such as Boiler Water and steam quality Water/Waste Water Treatment Plants, Chemical Dosing System, Water Analysis System, Hypo-chloride Injection System, etc. and chemistry with all specs.
- Assure and confirm the Service water, Potable water, Demineralized Water and Steam Quality meets the standards.
- Well versed in record keeping, chemical stock management, Bulk storage, tendering formalities, supplier negotiation, document verification etc. for safe commissioning.
- The system owner is the technical authority on the system and will review work packs from a technical point.