

**102951-CHE-18DOSn-E-2008**  
**Water Desalination Specialist & Process Expert**

Holds a B. Sc. in Special Chemistry and has about 11 years hands-on experience in mega projects water desalination and power generation stations, industrial wastewater treatment and water treatment plants with providing technical and commercial leadership on the water desalination projects across the EPC/IWPP/IWP technical and commercial review of tenders for water desalination projects, design review, process review and technical review.

## PERSONAL DATA

Nationality : Egyptian  
Birth Date : 01/07/1987  
Gender : Male  
Marital Status : Single  
Residence : Currently KSA

## EDUCATION

: B. Sc. in Special Chemistry, Cairo University, 2008  
: Pre-Master in Analytical Chemistry, Benha University, 2011

## LANGUAGES

Arabic : Native Language  
English : Fluent

## COMPUTER SKILLS

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

## TRAINING COURSES AND CERTIFICATIONS

: Industrial Wastewater Treatment, NOMAC (Dec. 2014).  
: ERT & HSE, BAYAN GROUP (Nov. 2014).  
: Steam Water Chemistry Treatment, NOMAC (Jun. 2013).  
: Micro Analytical & Instrumental Chemical Engineering in Cairo University, Egypt (Jan. 2013).  
: English conversation course, British Council (2012).  
: Participation in the International Conference of GE in Egypt (Nov. 2012)  
: Reverse Osmosis techniques in BKG Water Solutions (Mar. 2012).  
: Cooling Towers & Boilers Chemical Treatments in BKG Water Solutions (Jul. 2010).  
: Technical Training in Veolia Water Solution (Feb. 2010).  
: Technical Training in Energy Exchanger in ERI Company (Jan. 2010).

- : English Conversation Course in Egyptian British Council (Feb. 2009).
- : Analytical Measurement in Vacsera Pharmaceutical Company (Sep. 2008).
- : Refining Petroleum Training in Cairo Refining Petroleum Company (Jul. 2007).

## CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From Jul. 2018 till now
- Employer** : POYRY SWITZERLAND - DOOSAN  
 Pöyry is one of the world's leading Engineering Consultancy Company that serves clients globally across the energy, industry and infrastructure sectors.
- Project** : SWCC SAUDI ARABIA (400000 M3/d)
- Job title** : Water Desalination Specialist & Process Expert
- Job Description** :
- Responsible for the scope development, scope management and commercial performance of the project to meet project goals and objectives.
  - Responsible for the process definition of mega project reverse osmosis water desalination during the project and execution phases including P&ID review, PFD, process simulations, process design, project procedures manual, control philosophy, ITR, functional descriptions and main equipment operating data.
  - Responsible for design, design review, process document review and O&M documents review for Shoaiba phase -04 reverse osmosis water desalination plant with total production 400000 m3/d.
  - Review and update the equipment's process design as per the project technical specification.
  - Prepare and review RO process, basic design, equipment sizing, RO membranes selection, RO membranes programs, pre-treatment and post treatment chemistry aspects, pumps, turbo chargers, ERDs and chemicals dosing system.
  - Participate in Design Review Meeting with main EPC contractor Doosan Heavy Industry and our client SWCC.
  - Manage and prepare the technical review meeting, weekly progress review meeting and project achievement reports.
  - Participate in the shop inspection and test procedures for all process equipments such RO membranes, RO pressure vessels, HP Pumps, ERD, DMF, CF, dosing pumps and chemical tanks.
  - Prepare technical reports and comment review sheets for the process department.
  - The main participant in HAZOP session with Doosan Engineering Procurement Construction Company.
  - Prepare and update the RO membranes projection software.
  - Prepare and review all chemical dosing system, chemical consumption and all tanks sizing calculation.
- Dates** : From May 2013 till Jun. 2018
- Employer** : NOMAC Company
- Project** : ACWA POWER SAUDI ARABIA (2.83 Million M3/d & 15500MW)
- Job title** : Senior Water Desalination Specialist & Process Specialist

- Job Description** :
- Responsible for overall operations, process, performance within water treatment facility. Duties typically include worker supervision, enforcing plant procedures and policies, conducting performance reviews and overseeing training programs.
  - Responsible for the scope development, scope management and commercial performance of the project to meet project goals and objectives.
  - Responsible for optimization and managing steam and water cycle chemistry treatment as per EPRI and IAPWS for mega project thermal steam power generation.
  - Develop and provide water treatment programs to wide range of projects for water desalination, energy industries, power generations, EPC contractors and engineering consultants.
  - Responsible for the process definition of mega projects reverse osmosis desalination during the project and execution phases including P&ID review, PFD, process simulations, process design, functional descriptions and main equipment operating data.
  - Follow-up of innovation projects in desalination and participation as a consultant in RO plant design.
  - Optimization of operation process, design, design review, pre-treatment and post treatment for water treatment plants.
  - Provide technical expertise and leadership for all water treatment plants design of infrastructure projects.
  - Responsible for the overall performance of the operation functions including operations, maintenance, technical support, planning and project of power plants, water desalination plants and water treatment plants.
  - Prepare and lead monthly and annual corrective and preventive maintenances of all water desalination plants.
  - Prepare technical reports to investigate the problems related to the scope of work and recommended solutions.
  - Presentation of more than 10 seminars related to water treatment, water desalination and environmental issues.
  - Supervision of chemical laboratory, chemicals preparation, prepare and update SOPs as per ASTMs.
  - Obtain, update and maintain plans, permits, and standard operating procedures for all water treatment plants.

**Dates** : From May 2010 till Mar. 2013

**Employer** : Ridgewood Egypt for water desalination by reverse osmosis and power generation

**Job title** : Water Desalination Technical Support Section Head

- Job Description** :
- Managing water desalination technical support department of 18 MGD of desalinated water by reverse osmosis and water treatment plants.
  - Provide professional direction and managing all operation activities of the company in accordance with the established policies to further achievements of company goals, objectives and standards of business.
  - Team Management, Supervise and lead the water, water desalination & water treatment technical support and O&M teams in discharging their duties at optimum levels ensuring resources are employed effectively.
  - Engage in contract negotiations with suppliers and business partners.

Also review financial reports to make financial strategy decisions and revenue and cost adjustment decisions.

- Design, design review, commissioning and operation & maintenance of more than 42 seawater and brackish water desalination plants with total capacity 18 MGD.
- Prepare and review RO process, design, equipment sizing, membranes selection, membranes programs, pre- treatment and post treatment chemistry aspects, pumps, turbo chargers, ERDs and chemicals dosing system.
- Troubleshooting, performance optimization and technical support expert for water treatment sector with provision of technical and commercial assistance to more than 28 seawater and well water desalination plants.
- Prepare the proposal for all water desalination projects with technical and commercial proposal.
- Study, assess and evaluate the performance of the existing water desalination and wastewater treatment plants using hydraulic programs, design programs and normalization programs.
- Provide onsite inspection, audit, technical assistance, technical recommendations and technical training for Operators, Engineers, Chemists and Technicians.
- Provide technical expertise to Industries utility and Customers in applications of membranes technology, purification process, water desalination, industrial wastewater treatment and water treatment sector.
- Instructor and lecturer for customers and companies regarding water treatment technology, separation process, ultrafiltration, reverse osmosis technology, design, commissioning and O&M of water desalination technology.
- Working closely with American and European water treatment companies and consultants such BKG, KINGLEE, VEOLIA, KURITA and GE.

<b>Dates</b>	:	From Nov. 2008 till May 2010
<b>Employer</b>	:	Ridgewood Egypt for water desalination by reverse osmosis and power generation
<b>Job title</b>	:	Water Desalination Field Service Chemist
<b>Job Description</b>	:	<ul style="list-style-type: none"><li>• Conduct extensive laboratory tests and researches to develop customized treatment processes and solutions.</li><li>• Review and monitor chemical pre-treatment and chemical dosing system for coagulation and flocculation process, antiscalants, disinfectants, biocide and chemical cleaning agents.</li><li>• Sites visit &amp; obtain data and apply historical analysis to identify growth-driven trends in asset performance of water desalination plants.</li><li>• Collect and review UF and RO data to evaluate and conduct RO Membranes Performance Normalization.</li><li>• Prepare and conduct RO membranes chemical cleaning.</li><li>• Prepare and draw the Pre-treatment and Post treatment system for water desalination plants.</li><li>• Prepare weekly, monthly and annual chemical consumption reports.</li><li>• Prepare and update RO plant design and RO membranes projection software as per environmental changes.</li><li>• Prepare chemical budget reports for water desalination and water</li></ul>

treatment plants.

- Review and update corrective & preventive maintenance for water desalination and water treatment plants.

**PROJECTS AND ACHIEVEMENTS:**

- Shoaiba Water Desalination Project, Saudi Arabia - Reverse Osmosis Water Desalination 400000 m3/d.
- Rabigh Water & Power Project, Saudi Arabia - 1200MW & Reverse Osmosis Water Desalination 30000 m3/d.
- Ridgewood Project, Egypt - Reverse Osmosis Water Desalination 100000 m3/d.