

Holds B. Sc. in Petroleum & Petrochemicals Engineering, M. Sc. in Gas Processing and LPG Recovery, PhD in Petroleum Economics and Oil Prices and MBA. Has about 13 years experience in design, operation and troubleshooting of gas processing facilities.

## PERSONAL DATA

Nationality : Egyptian  
Gender : Male

## EDUCATION

- : B. Sc. in Petroleum & Petrochemicals Engineering, Suez Canal University, 2008
- : M. Sc. in Gas Processing and LPG Recovery, Suez Canal University, 2016
- : PhD in Petroleum Economics and Oil Prices, Suez Canal University, 2020
- : Master of Business Administration, Roma Business School, Cairo, 2020

## LANGUAGES

Arabic : Native Language  
English : Good

## COMPUTER SKILLS

- : Windows, MS Office, Internet

## TRAINING COURSES AND CERTIFICATIONS

- : CEng ICHEME, Institution of Chemical Engineers, UK.
- : PHA-Leader (ICHEME - TUV, Nord).
- : Functional Safety Engineer - TS17050513.
- : HYSYS Certified User, Pipesim, Flare Analyzers.
- : OPITO Approved Competence Assessor – 85169018080419825.

## CHRONOLOGICAL EXPERIENCE RECORD

**Dates** : From Jan. 2016 till now  
**Employer** : El-Wastani Petroleum / Dana Gas, Egypt  
El-Wastani gas plant built in Nile delta, Egypt. Gas feed to plant came from onshore wells where it processing inside the plant to produce sales gas, Liquefied petroleum gases LPG, and condensate.

- Job title** : Senior Process Engineer
- Job Description** :
- Provide technical and operational expertise within process area.
  - Handle process activities such as studies and design modifications in the operating facilities.
  - MOC champion, PHA Leader (HAZOP, HAZID, LOPA), Implementation Process safety management according to OSHA 29.
  - Lead Techno Commercial Proposal evaluation for new Project (Early production Facility, EPF - Faraskour Nodal Compression).
  - Develop and oversee execution of tactical and strategic plans to improve process safety management performance.
  - Lead and facilitate PHA's, and LOPA's for processes to meet both internal and external regulatory schedule requirements while providing the necessary documentation, completing management reviews and issuing reports to meet established deadlines.
  - Support, provide oversight, and track closure of PHA /LOPA related action items to ensure timely completion and appropriate documentation.
  - Provide technical and operational expertise in design verification stage.
  - Writing operating training materials for the cryogenic areas inside the plant.
  - Supervise the internal training for the junior operation engineers and operators, plus provide process safety trainings to employees, managers and external partners / contractors in order to increase safety awareness and support our safety culture.
  - Identify long-term improvement opportunities for process area (margin improvement; reliability, energy, etc.).
  - Lead process development activities for unit area/ Facility.
  - Participate in planning, cost development and management, and scheduling for assigned projects.
  - Direct activities to ensure that construction, installation, and operational testing conform to functional specifications, recognized codes and standards, and customer requirements.
  - Maintain effective communication with project team members and with the customer.
  - Lead responsibility for technical direction of a group of engineers or functions as a technical specialist.
  - Formulating and developing advanced engineering concepts, techniques, and standards.
  - Develop and maintain programs to assure the condition of the process, utilities equipment, and pipelines will provide safe and reliable operation.
  - Implement effective internal and external corrosion control strategies for all assets including pipelines.
  - Provide engineering and inspection input into scope for shutdowns/turnarounds.
  - Develop and improve existing systems, standards and procedures.
  - Maintain technical integrity by identifying and mitigating risks in a timely and efficient manner.
  - Plan and resource integrity related activities to meet asset insurance requirements.
  - Establish effective processes/procedures for inspection, and technical auditing to manage compliance industry best practice and company standards.

- Maintain technical integrity by identifying and mitigating risks to assure the safety of continued operation with known defects.
- Participate in safety meetings, audits and action audit recommendations to assure the safety of continued operations.
- Provide incident investigation training to employees, managers, and external partners/contractors.
- Lead root cause analysis of process safety incidents and communicate findings.
- Track incident investigation completion, action items, and findings.
- Develop and implement ongoing review of pipeline monitoring and maintenance systems.

**Dates** : From 2016 till now

**Employer** : Diar Consulting Group, Egypt

- Projects** :
- The Egyptian Ethylene and Derivatives Company:
    - Lead and deliver HAZOP study for the Ethylene Plant 150 Sheet P&ID.
    - Lead and deliver HAZOP Re-validation study for the Utility Plant 120 Sheet P&ID.
  - Alexandria Mineral Oils Co. (AMOC) - Process Safety Management Gap Analysis Survey of the Alexandria Minerals Oil Company (AMOC) Facilities:
    - Assess the process safety culture spread in AMOC.
    - Assure applicability of the ROAD MAP and the ACTION PLAN to fill the gaps in the next three years starting in 2021.
    - Set the evaluation criteria- Assessment protocol.
    - Issue tender for implementing the road map.
  - PETROGULF - Blow down header will be routed from the existence flare system at Geisum Star platform to another temporary rental flare system production platform (WP-C/D) to allow the knock out drum inspection and replacement of flare tip:
    - Lead the flare radiation and dispersion study.
    - Rental flare Verification Report including:
      - ❖ Flare location selection.
      - ❖ Utilities verification.
      - ❖ Equipment and lines PSV's (Revalidation).
    - Updated process flow diagram (PFD).
    - Lead the HAZID study for the new Flare Package.
    - Lead the HAZOP study for the new Flare Package.
  - TOTAL-Lubricant - Revamp Plant to add Viscosity improver unit (VIU), two atmospheric tanks. Upgrade the primary / secondary Heating system:
    - Lead the HAZID/ HAZOP studies.
    - Preparation of various engineering deliverables (Drawings & Documents).
    - Process flow diagrams (PFD), P&I Diagrams, process equipment datasheets, specifications, Tie-In list, equipment list, Cause & Effect diagrams, control philosophies, shutdown philosophies, Isolation philosophy.
    - Generate integrated operation & maintenance manuals.
    - Providing necessary engineering inputs to the other disciplines and

other Departments.

- Design new equipment, start-up procedure, plant simulation and blow down Philosophy.

**Job title** : Freelancer Process / Process Safety Engineer  
**Job Description** :

- Process Safety Management Gap Analysis Survey of the Alexandria Minerals Oil Company (AMOC) Facilities.
- Rental flare installation for Geisum star platform, Radiation and dispersion study, flare verification, HAZOP, Petrogulf complex (offshore).
- Revamp plant to add Viscosity improver unit (VIU), two atmospheric tanks, Total lubricant.
- Lead and deliver HAZOP study for the Ethylene Plant, ETHYDCO.
- Fire and Explosion Risk Assessment (FERA) For The first Intermediate chemical plant in Egypt (NHTT).
- Lead a HAZOP- JHA studies for flare gas recovery unit, CORC Refinery.

**Dates** : From 2014 till 2016

**Employer** : Dana Gas, UAE

**Project** : ONSHORE PLANT AND OFFSHORE PLATFORM - ZORA Project (350 Million USD): The ZORA project consists of the ZORA field, which contains gas and condensate and is located in the West Sharjah Concession in approximately 24 meters of water depth, which a new unmanned Offshore Platform located approximately 33 km from the Sharjah Hamriyah Free Zone coastline. A new Subsea / Onshore Pipeline to a new Onshore Gas Processing Plant within Sharjah Hamriyah Free Zone connected this. In addition, a sales gas pipeline will deliver processed gas from the Plant to the nearby power station (customer).

**Job title** : Senior Process Engineer

**Job Description** :

- Review and approval of all Process Engineering deliverables i.e. front-end studies and participate in facilities design review, safety case review, process simulations.
- Review and approve safety requirements (relief and blow down philosophy, drain philosophy, flare dispersion calculation, fire and gas detection layout, hazards area, protection system philosophy i.e. fire, produce safety and environmental case). Development of safety procedures to use during pre-commissioning & commissioning activities.
- Oversee, ensure and guide the process and process safety engineering work of the EPC main Contractor and ensure that quality and standards are maintained, abiding by Company requirements, ensure cost effective solutions and application of value-added engineering throughout the project.
- Review and approval of all Process Engineering deliverables i.e. front-end studies and participate in facilities design review, safety case review, process simulations.
- Review contractual documents and identify project requirements and constraints / risks/ mitigation plans.
- Establishing plant envelop to achieve product specification.
- Review and approval of all process engineering deliverables.
- Carrying out process simulations and optimization studies (HYSYS).
- Generating the interface matrix to coordinate of technical area with other discipline specialists.

- Scheduling and coordination of PHA studies (HAZOP/SIL) and implement of measures resulted from these studies.
- Support commissioning, start-up procedures and Pre-start-up safety review standard (sweet and sour hydrocarbons): set-up the objectives (check-lists) for the final check before start-up of critical processes (commissioning of new or modified processes, introducing hazardous chemicals to assure the conditions for a safe start-up).
- Preparation of technical documentation to demonstrate platform compliance to API standard.
- Review 3D module and plant layout, piping and instrument diagram, cause and effect chart.
- Review and approve safety requirements (relief and blow down philosophy, drain philosophy, flare dispersion calculation, fire and gas detection layout, hazards area, protection system philosophy i.e. fire, produce safety and environmental case).
- Preparation of pre-commissioning, commissioning and start-up execution plan; development of planning and scheduling of pre-commissioning and commissioning plan for entire projects and integration with Client planning for commissioning and start-up.
- Development of pre-commissioning & commissioning procedures (air blowing, chemical cleaning, water flushing philosophies, E&I test and functional test, refractory drying, catalyst and adsorbents loading, steam blowing, etc.).
- Development of safety procedures to use during pre-commissioning & commissioning activities such as tagging, vessels entry for inspections, isolation & blind installation procedures and work permit procedures in collaboration with HSE department.
- Support management of change (MOC) process from process/operation point of view, provide technical input and lead the performance test.

<b>Dates</b>	:	From 2009 till 2014
<b>Employer</b>	:	El-Wastani Petroleum, Damietta (Egypt)
<b>Job title</b>	:	Shift Lead Operation Engineer
<b>Job Description</b>	:	<ul style="list-style-type: none"> <li>• Ensuring safe plant operation according to the operating procedures, operating schematics, safety and security procedures, safety case (maintain) and provide training to operating personnel.</li> <li>• Monitor performance of the operating units to ensure optimum yields equipment and systems performance, identifies potential problems and submits recommendations for appropriate actions such as revising operating modes or conditions, recommending chemical dosing and specifications.</li> <li>• Ensuring safe plant operation according to the operating procedures, operating schematics, safety and security procedures, safety case (maintain) and provide training to operating personnel.</li> <li>• Process optimization, troubleshooting of operational abnormalities, process unit and equipment performance evaluation, process database management, development of PFD and PID.</li> <li>• Plan and monitor the work, coordinates the work with other disciplines and manages the financial aspects.</li> <li>• Prepare monthly plant production and operating data, evaluates unit efficiencies by relating chemical and energy consumption to plant</li> </ul>

throughput.

**Dates** : From 2009 till now (Freelance)  
**Employer** : Cairo - Dubai (Middle East)  
**Job title** : Process - Process Safety Instructor

**Dates** : From 2008 till 2009  
**Employer** : General Petroleum Company, Cairo (Egypt)  
**Job title** : Operation Engineer  
**Job Description** :

- Prepare energy and mass balance and plant performance report.
- Monitor performance of the operating units to ensure optimum yields equipment and systems performance, identify potential problems and submits recommendations for appropriate actions such as revising operating modes or conditions, recommending chemical dosing and specifications.
- Responsible for work request and approval on plant; identify and request for any requirement for engineering work; ensuring safe working condition and accepting engineering work.

**Further experiences** :

- Process Engineer, Dana Gas Egypt:
  - Coordinate operational shutdown and startup for the main process facility. Design review (PFD, P&ID), mechanical completion, pre-commissioning, and commissioning and startup activities.
  - Lead Techno commercial studies (Rough Cost Estimates, Detailed Cost estimates/ Proposal evaluations) for the Sharabas Nodal Compression.
  - Successfully manage contractors and represent as the focal point for all process related quires and studies.
  - Prepare data for new projects and major revamps.
  - Scheduling and coordination of PHA studies (HAZOP/LOPA) and implement of measures resulted from these studies.
  - De-bottlenecking study to revamp WASCO plant to accommodate 200 MMSCFD instead of 160 MMSCFD.
- Project: Nodal-1 / 2 / 3 Compressions Plants, Project Value (10, 12 and 14) Million USD:
  - Lead Feasibility study and the rough cost evaluation.
  - Coordinate Operational & process input and responsible for the construction and start-up for Nodal-1, 2 and tie it to the main process facility.
  - Follow up on detailed engineering of the projects, check design calculations, engineering drawings and specifications and make comments as appropriate. Participate in HAZOP and HAZAN studies pertaining to proposed modifications, including identifying potential operational and safety related problems and coordinating appropriate solutions.
  - Design review (PFD, P&ID), mechanical completion, pre-commissioning, commissioning and start-up activities.

**Field of experience** :

- Senior Process Engineer, with UK chartered status.
- Experience includes all phases of the project life cycle; namely feasibility

studies, cost estimates, FEED, detailed engineering, construction, commissioning, start-up, performance testing and plant handover (Green / Brown Fields).

- Career has progressed from shift operation engineer to shift leader to engineering and commissioning engineer to deputy project management on Million-dollar projects.
- Extensive knowledge of process safety management and loss prevention techniques, complimented by being an ICHEME qualified HAZOP team leader.
- Operation: Design and operational experience on gas and oil treatment plant, HYSYS / PRO-II / Phast-DNV, Process safety management and loss prevention techniques, HAZOP / SIL / QRA / MOC, Asset Integrity.