101877-CME-4DGOS-E-1988
General Manager – Process Engineering

Holds a B. Sc. in Chemical Engineering and has about 30 years experience in the field of process engineering design for Oil, Gas (onshore & offshore), Petrochemicals and Process Industries.

PERSONAL DATA

Nationality	:	Egyptian
Birth Year	:	1965
Gender	:	Male

EDUCATION

: B. Sc. in Chemical Engineering, Cairo University, 1988

: MBA Student, Last semester, ESLSCA Business School, expected to finish Nov. 2019

LANGUAGES

Arabic	:	Native Language
English	:	Fluent

COMPUTER SKILLS

: Windows, MS Office, Internet

TRAINING COURSES AND CERTIFICATIONS

: Certified HAZOP lead (TÜV Rheinland, # OE238/6/9873/3rd Jan 2012).

: Certified FS Eng (TÜV Rheinland, #13618/17, Safety Instrumented Systems).

: Honoured by the Minister of Petroleum in 2005 during the celebrations of the Petroleum Sector and was granted a certificate of appreciation for his excellence representing Enppi.

: Certificate for the outstanding performance in 2007 from Saudi Aramco on their first project with Enppi.

: Honoured by Enppi in 2009 for the outstanding performance.

: Appreciation from Ethydco/Echem in 2013 for achieving the target schedule of finalizing with the assigned committee the technical evaluation of the polyethylene project technical offers in three weeks.

: Leader ship of excellence from the petroleum ministry in 2014 for six months intensive top managerial level courses.

: Honoured by Enppi for the outstanding performance in Zohr project in 2018.

: Honoured by ANRPC for the outstanding performance in ANRPC NEW CCR project in 2018.

CHRONOLOGICAL EXPERIENCE RECORD

Dates : From 2015 till now

Employer : ENPPI

Job title : GENERAL MANAGER - Process Technology

Job Description :

- Process General Manager within the process technology division responsible for the overall project (i) planning, (ii) direction, (iii) coordination and (iv) efficient operation of the division activities, including deliverables review and approval to achieve the objectives of the division.
- Samples from the performed projects during this period are as follows:
  - PTB/Eni, Zohr phase I development project:
    - ❖ One of the mega projects in Egypt developed on a very fast track approach owned by “Belayim Petroleum Company a joint venture with Eni” and aims to install on shore production facilities with a design capacity of 2800 MMSCFD for a sour feed gas received from the off shore subsea wells 216 km a part from the on-shore area through dedicated pipelines.
    - ❖ The project is developed on two high pressure phases every one with a design capacity of 1400 MMSCFD @ arrival pressure of 84 barg and a third phase to cope with the well’s depletion with a design capacity of 2800 MMSCFD@ 24 barg arrival pressure.
    - ❖ The project process units comprises reception facilities from offshore pipelines; Gas Treatment System; Acid gas removal unit with absorption from gas using unsaturated Amine solution; Dew point control by silica gel; Sulphur Recovery unit (SRU) as H2S as a mean of sustainable development; Sulphur Forming unit with 99.9% purity; Condensates treatment and stabilization, beside all associated utility systems required.
    - ❖ 35 process engineers from different speciality were assigned on this project phase I with and 20 engineers were assigned on phase II. The total assigned engineering hours were 130,000 and 80000 for phase I and II respectively.
    - ❖ The current plant capacity is now 2450 MMSCFD and expected to reach the design capacity by the end of November 2019.
  - ANOPC, ANOPC HYDROCRACKING COMPLEX (Early work phase with Technip):
    - ❖ The project owned by “Assiut National Oil Refining Company (ANOPC)” a subsidiary of Egyptian General Petroleum Corporation (EGPC), the project aims to upgrade the existing Refinery’s “bottom of the barrel” in Assiut existing refinery (Middle Egypt), by installing new grass root “zero fuel oil” Refinery complex.
    - ❖ The new ANOPC Hydrocracking Complex will convert the ASORC’s existing refinery fuel oil into more valuable products and will improve ASORC’s middle distillates quality. The AHC design will be based on the zero fuel oil concepts and will have the target of both maximizing the diesel production and minimizing the light ends production (except LPG). AHC’s final products will be LPG, Naphtha, Diesel, Coke and Sulphur.

- ❖ Technip is the main contractor of this project and Enppi is subcontracted to perform the early work for the cost estimate for the Vacuum distillation unit (VDU), Distillate Hydro- treating unit (DHU, licensed by AXENS), sulphur recovery unit (SRU, licensed by SIIRTEC), and the storage facilities as well as some utility systems.

- MIDOR, MIDOR EXPANSION HYDROCRACKING COMPLEX:
  - ❖ The project owned by "Middle East Oil Refining Company (MIDOR)" a subsidiary of Egyptian General Petroleum Corporation (EGPC), the project aims to upgrade the existing Refinery's from 100,000 BPD to 160,000 BPD by upgrading some existing units and installing of new units.
  - ❖ Technip is the main contractor of this project and Enppi is subcontracted to perform the detailed engineering work of the new atmospheric distillation unit (CDU), Vacuum distillation unit (VDU), Propane de-asphalting unit (SDA, licensed by UOP), and the storage facilities as well as some utility systems.
- PHPC/BP, Atoll Gas development project: The project owned by "Pharaonic Petroleum Company a joint venture with BP" and located in Egypt - Port Said. The project aims to upgrade the existing onshore and offshore facilities associated with ATOLL subsea field, to increase production by 300MMSCFD.
- ANRPC, New CCR platforming project: The project aims to install a new CCR and platforming Facility within the existing complex, based on UOP License to process 604 KTA of Hydro-treated Heavy Naphtha to produce Reformate with high Octane number "RON 100", Un-stabilized LPG and Hydrogen which will be utilized in downstream future processing facilities in addition to the supporting utility system.
- SOPC, COKER PLANT NEW VRU project: The project owned by "Suez oil petroleum company (SOPC)" a subsidiary of Egyptian General Petroleum Corporation (EGPC), the project aims to design a new Vapour Recovery Unit to accommodate the off gases from the various gas streams generated from existing process units to recover and produce treated LPG, stabilized naphtha and off gases.
- SOPC, NEW ASPHALT UNIT PROJECT: The project owned by "Suez oil petroleum company (SOPC)" a subsidiary of Egyptian General Petroleum Corporation (EGPC), the project aims to design a new Vacuum Distillation Unit (VDU) for asphalt production through the removal of the light fractions from the Atmospheric Residue (AR) feed. The unit will be designed to process the AR produced from the Atmospheric Distillation Units (CDU).
- BURLLUS/BG, Taurus/Libra gas development project: The project owned by "Burullus Gas Company a joint venture with BG" aims to supplement the production from West Delta Deep Marine (WDDM) concession by developing additional fields from Taurus/Libra and to tie-in to the offshore WDDM subsea infrastructure for onshore processing, to supplement the production rate from the concision by around 600 MMSCFD.
- GASCO, Deep cut phase I project: The project owned by "The Egyptian Natural Gas Company" and aims to install a new facility within western desert gas complex to provide a deep cut of ethane

to produce around 682 Ton/Day with a total recovery of 74%. in lieu of 54%.

Dates : From 2012 till 2015
Employer : ETHYDCO/ECHEM - EGYPT
Project : ETHYDCO, Egyptian Ethylene and Derivatives Company
Job title : Engineering General Manager
Job Description :

- Seconded to Ethydco, assigned the position of Engineering General Manager and participated with the project management team responsible on this new petrochemical complex project with an investment cost of 2.0 billon us dollars.
- The project comprises of the following: Ethylene plant with a design capacity of 460 KTA & 20 KTA Butadiene, following CB&I lummus license - Polyethylene plant with a design capacity of 400 KTA to produce HDPE/LLDPE following Univation license - Butadiene derivatives plant with a design capacity of 36 KTA following versalis license. - Common utility plant to supply the process plants with the utility systems required. - Common flare system to serve the process plant - Independent power generation project designed to produce 90MW (simplex cycle) and can be upgraded through complex cycle to produce 150MW to satisfy the complex projects power needs and future demands.
- Managed a multi disciplines engineering teams representing the owner for every project.
- Special assignment as the head of the technical committee responsible for evaluating contractors' technical offers of Polyethylene project.
- Member of the assigned committee to finalize the negotiation with the successful contractor.
- Assigned as the focal point technical representative with the lender's consultant (NEXANT).
- Managed and lead a team for the preparation of all the technical studies required for projects.
- Followed up with every team the content of the vendor prints technical quality and assist to solve technical issues between the team and the relevant contractor/supplier.
- Managed and lead a team to make sure that the interfaces between projects are well defined and under control. Ensure internal interfaces are identified and managed early via a structured process.
- Co-ordinated in a timely manner with every contractor to transfer interface information required by other contractor to progress the Services.
- Managed and lead a team responsible for securing complex power needs as a contingency if the main power plant readiness may impact the complex projects commissioning & start-up.

Dates : From 2009 till 2012
Employer : ENPPI
Job title : Process Assistant General Manager

Job Description :

- Process Assistant General Manager within the process technology division responsible for the overall project (i) planning, (ii) direction, (iii) coordination and (iv) efficient operation of the division activities, including deliverables review and approval to achieve the objectives of the division.
- Samples from the performed projects during this period are as follows:
  - BAPETCO/Shell, Assil & Karam Gas Development Project: The project owned by "Badr El-Din Petroleum Company (Shell Join Venture in Egypt)". The project aims to install of CO2 removal Plant, utility facilities to support CO2 removal by installing wellhead facilities (7 for Karam wells and 5 for Assil wells), 29 KM pipelines, receiving facilities, utilities and a CO2 removal unit for the processing of 164 MMSCFD from Karam wells and 76 MMSCFD from Assil wells.
  - PHPC/BP, West Harbor Expansion Project: The project owned by "Pharaonic Petroleum Company a joint venture with BP" and aims to expand West Harbor existing facility, which process 280 MMSCFD from Ha'py and 265 MMSCFD from Taurt fields; by providing an additional HP stage Compression Train in addition to the utility systems required and Expand the plant design capacity to 585 MMSCFD.
  - BURLLUS/British gas, Phase VII Main Compression Onshore Project: The project owned by "Burullus Gas Company a joint venture with BG" and aims to install of a new 5x25% gas turbine driven compression trains, for Burullus, with a capacity of 642Million Standard Cubic Feet per day in the 7th phase of Idku Hub plant, to accommodate the pressure declination of the plant inlet pressure from 58 to 30 barg. It also includes a new Finger type slug catcher, High Pressure Separators and all supporting utilities.
  - GUPCO/BP, Rehabilitation Project: The project owned by "Gulf of Suez Petroleum Company a joint venture with BP" and aims to the Rehabilitation of BP offshore existing facilities including steel structural platforms, topside facilities and subsea pipelines. The offshore facilities consist of 9 complexes & 69 satellites (with an overall count of 119 platforms and 400 wells) and 1600 km of sub-sea pipelines. The aim of the overall rehabilitation project was to make sure that the whole system could safely operate for at least additional 25 years maintaining the best possible operating conditions and capacities.
  - PTB, (Eni), SETH Offshore Development Project: The project owned by "Belayim Petroleum Company a joint venture with Eni" and aims to install a new platform in water depth of 83.3m with the topside facilities required at PTB Seth gas field in the Ras El Barr Concession West Nile Delta area (Mediterranean Sea), total field production flow rate is 4.5 MMSCMD.
  - PTB, (Eni), TUNA Off shore Field Development Project: The project owned by "Belayim Petroleum Company a joint venture with Eni" and aims to develop Tuna field at the Mediterranean Sea by installing a new platform (4-legged platform approx. 82 m of water) and connecting pipelines (24'' subsea pipeline approx. 15 km from Tuna platform to new PLEM and eventually to the existing Denise-A SSIV and 32" P/L to onshore plant near T-NW2 existing platform) to

support the production of 4.5 MMSCFD.

- YASREF/Saudi Aramco, Yanbu Export Refinery Project Tank Farm Package – SP1: The project owned by "Yanbu Aramco Sinopec Refining" and aims to install a new refinery with capacity of 400,000 Barrel/Day. Enppi scope covers the Tank farm package which comprise of 33 storage tanks with different diameters (12.5 to 120 mt), sizing up to 1.2 Million Barrels and 13 spherical tanks 60,000 barrels each.

Dates : From 2006 till 2009
Employer : ENPPI
Project : PDVSA, Fifth train fractionation project
The project owned by "Petróleos de Venezuela, S.A." and aims to install a 2200 MMSCFD gas sweetening plant to completely remove the CO2 / H2S and CO2 dehydration for the natural gas upstream. The extraction facilities in ANACO and the dehydrated CO2 (200 MMSCFD) will be used for well gas lift, in addition to retrofit of the San Joaquin extraction facilities Trains A & B to achieve 98 % ethane recovery. The scope includes provision of molecular sieve dehydration package along with its regeneration (H2O plus CO2 200 MMSCFD – well gas lift).
Job title : Gas Engineering Dept. Manager
Job Description : Gas Engineering Department Manager within the process technology division responsible for the overall project (i) planning, (ii) direction, (iii) coordination and (iv) efficient operation of the division activities, including deliverables review and approval to achieve the objectives of the division.

Dates : From 2002 till 2006
Employer : ENPPI
Job title : Senior Process Lead Engineer
Job Description : Assigned as Senior Process Lead Engineer in the gas engineering department, leading the following projects:

- PDVSA, Pagmi phase I development project: The project owned by "Petróleos de Venezuela, S.A." and aims to design a new facility for Treating & Conditioning of 600 MMSCFD from the gas produced from the offshore area to be used in the domestic market.
- GASCO, Maximization of C2/C3 from W/D complex: The project owned by "The Egyptian Natural Gas Company" and aims to maximize C2 & C3 recovery from the existing facilities in western desert gas complex and Amerya Liquefied Petroleum Gas (LPG) plant as well as expand the complex design handling capacity to 905 MMSCFD instead of 605 MMSCFD and maximize the use of the existing utility systems.
- SAUDI ARAMCO, Yanbu gas expansion project: The project owned by "SAUDI ARAMCO" and aims to expand Yanbu NGL plant capacity from 390 to 585 MBOD. The work scope includes 195 MBOD de-Ethanizer with ancillaries and propane, refrigeration system, feed to the existing de-Propanizer and de-Butanizer columns, construction of substation with process interface room and expansion of DCS and ESD systems.
- UGDC/Eni/PB/GASCO, United gas derivatives project: The project owned by "United Gas Derivatives Company a BP/Eni/GASCO Join venture" and aims to design a deep NGL processing facilities for 1100

MMSCFD feed of natural gases produced to produce propane, LPG, and condensates completed with the required utility systems and offsites storage.

- PTB, Eni Temsah NW2 gas development project: The project owned by “Belayim Petroleum Company a joint venture with Eni” and aims to design a new Temsah North West platform TNWP-2 with the required topside facilities and associated sea lines for a design capacity of 350 MMSCFD.
- PTB, Barbouni gas field development project: The project owned by “Belayim Petroleum Company a joint venture with Eni” and aims to design a new platform at 91 m water depth with the required topside facilities, for a design capacity of 4.4 MMSCMD, where gas is directed to the existing PLEM through 26” subsea pipeline.
- PTB, Baltim north gas development project: The project owned by “Belayim Petroleum Company a joint venture with Eni” and aims to design a 4 legs 9-slots tubular steel frame jacket, and a fixed offshore production platform with a capacity of 4.7 MMSCMD Gas. Gas & Condensate are directed to Baltim east existing platform through an 18" Pipeline.

Dates : From 1991 till 2002

Employer : ENPPI

Job title : Process Engineer / Process Lead Engineer

Job Description : Assigned as Process Engineer / Process Lead Engineer in the gas engineering department in the following projects:

- PTB, Baltim East gas development project: The project owned by “Belayim Petroleum Company a joint venture with Eni” and aims to design a 4 legs 9-slots tubular steel frame jacket, and a fixed offshore production platform with a capacity of 4.7 MMSCMD Gas.
- GASCO, western desert gas complex: The project owned by “The Egyptian Natural Gas Company” and aims to design a new NGL plant with a processing capacity of 550 MMSCFD completed with the required utility systems and off sites. The plant is designed to produce ethane & propane mixture of downstream ethylene and polyethylene production, commercial propane, sales gas, Liquefied Petroleum Gas (LPG) and condensate.
- SUMED, Egypt Pipeline throughput achievement project: The project owned by “Arab Petroleum Pipelines Company” and aims to install Crude pipeline throughput achievement from 80 to 117 MM T/Y consisting of three areas as follows: (i) Ain Sukhna: Effluent treatment System (1000 M3/H) Expansion (ii) Dahshour: Two new pumping Stations (three pumps 8000 M3/H each) site facilities (iii) Sidi Kreir: three pumps 4000 M3/H each.

Field of experience :

- Main activities:
  - License selection and evaluation.
  - Conceptual studies.
  - Typical FEED process package deliverables.
  - Other contractors FEED process package verification.
  - Typical detailed process engineering deliverables (PFD’s, P&ID’s, MRQ’s, technical evaluation, vendor prints, pre-commissioning plan,

operating manual up to the performance test at site).

- Detailed activities are summarized as follows:
  - Take responsibility for the overall quality of work produced by the PTD personnel, by ensuring that the engineering work and design made by the assigned group members are safe, cost-effective and conforms to contract requirements; Company standards, applicable codes, regulations and established Company methods and procedures.
  - Develop and update systems, procedures, methods and standards controlling the operations of the departments with the objective of improving performance and keeping abreast of the latest engineering practices. Make use of the Company procedures and manuals to improve Company standards.
  - Review the projects scope of work and supervises the department leaders in developing work plans for projects execution, ensuring that specification registers, periodic progress reports and other control documents are properly prepared and timely issued by project leaders.
  - Review the man-hours estimate done by the assigned project leaders in accordance with workload forecasts, manpower planning and the assignment of personnel to jobs.
  - Review and approve the technical content of the finally developed relevant departmental engineering instructions and design guides for its completion, compliance and consistency with other engineering standards.
  - Provide the necessary technical upgrading of all personnel in the department to improve their capabilities and competencies, take the responsibility for identification, planning and implementation of the training needs within the department in coordination the Human Resources Division General Manager.
  - Ensure the full implementation of the Company and departmental work instructions, design guides and manuals in accordance with the requirements of the Company Quality, Environmental and Health & Safety Management systems.
  - Establish and ensure the implementation of the Quality Control programs and Quality Assurance procedures for the division activities within the frame work of the overall Company Quality Management System.
  - Ensure the full awareness and implementation of the requirements of the Company Quality, Environmental and Health & Safety Management systems.
  - Review and approve issues project process and utilities flow diagrams, process descriptions and process utilities design basis.
  - Review and approve issues project P& ID's.
  - Review and approve issues process packages material requisitions for inquiry and purchase.
  - Review and approve technical evaluation reports for process packages.
  - Review and approve the plant pre-commissioning procedures and operating guides.
  - Assigned as HAZOP Chairman & provide HAZOP reports.
- EXPERIENCE WITH INTERNATIONAL COMPANIES IN OIL & GAS:

Get in contact with the international companies in the oil, gas & petrochemical fields in their premises such as KTI, KBR, UOP, ENI/AGIP, CB&I Lummus, TECHNIP, ABB RANDALL, TOYO and others.