## **107329-MEC-4CSY-E-1998** Commissioning Maintenance Lead Engineer

Holds B. Sc. and M. Sc. in Mechanical Engineering and a Post Graduate Diploma in Machine Design. Has over 19 years hands-on experience working in construction, pre-commissioning, commissioning, start-up, piping fabrication, installation, flushing and testing.

#### PERSONAL DATA

| Nationality    | : | Egyptian   |
|----------------|---|------------|
| Birth Date     | : | 27/09/1974 |
| Gender         | : | Male       |
| Marital Status | : | Married    |
| Residence      | : | Cairo      |
|                |   |            |

# **EDUCATION**

- : B. Sc. in Mechanical Design & Production Engineering, Zagazig University, 1998
- : Post Graduate Diploma in Machine Design, Zagazig University (2002-2004)
- : M. Sc. in Mechanical Engineering, Benha University, 2012

# LANGUAGES

| Arabic  | : | Native Language |
|---------|---|-----------------|
| English | : | Very Good       |

### **COMPUTER SKILLS**

- : Windows, MS Office, Internet
- : AutoCAD
- : FLOWPIPE EXPERTS
- : Autodesk Navisworks
- : GAS WORK, PDMS viewer

# TRAINING COURSES AND CERTIFICATIONS

- : General Maintenance for Petroleum Engineer, Suez Petroleum Co.
- : Introduction to NDT, Egyptian Town Gas Co.
- : Introduction to Programming, IBM Certificate.
- : Programming C++, Advanced C++ (IBM Certificate).
- : Toefl Course Scores 523 Local.
- : Preparation Course PMP in PMI Institute in Egypt.
- : Confined Space entry Training.

- : Lock out Tag out Training.
- : H2s Training.
- : OSHA Training.
- : ICDL

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# CHRONOLOGICAL EXPERIENCE RECORD

#### Dates

: From Jan. 2017 till now

- Employer
- GS Engineering & Construction
- Project
- : Egyptian Refinery Company (TAKRER) S.AE
- Job title : Commissioning Maintenance Lead Engineer
- Job Description
- Evaluation and Inspection of Construction Status for Plants Units.
- Core Team Organization Building.
- Managed a team of 200 strong Professionals and Engineers to inspect the refinery.
- Managed all subcontractors and Vendors Rep.
- Prepare Commissioning Execution plan Dry and Wet Phases (Starting from MC, FT, SC, RFSU, Operation and Performance Test, Plant Facility Handover).
- Preparation for All System Check Sheets A and B.
- Preparing and Participate in All Pre-commissioning Procedures as Boxing Up, Water Flushing, Chemical Cleaning, Lube oil Flushing, Mechanical Run in Test, Solo Run, Sensitive Leak Tests, Inerting, .....etc.).
- Prepare and follow up Vessel / Machinery Preservation Program.
- Establishment Punish listing / Killing / Walk down (Construction / QC / Comm. / HSEQ).
- Follow up Hydro tests packages (Engineering Review, and Handling Sequences).
- Follow Systems Commissioning Priority Plan to confirm smooth Plant Start-up.
- Perform and supervise for All piping Pre-Commissioning Activities as Dewatering, Drying, Air Blowing, Hydro Jetting, Chemical Cleaning, CLT, GLT, Inert Gas Preserve.
- Establishment and launching Flange Management Program(Material check, Alignment, Torqueing, RF Checking, Flange Tags Color cards, History Sheets, Severity Assessment).
- Building Maintenance / Fabrication Workshop for Valve Repairs / Maintenance, Jumpers Spools, Hoppers, platforms fabrication, Spades, Blinds and Manifolds.
- Prepare, Perform and Supervise Catalyst Loading Activities.
- Prepare and Perform PSVs Calibration and Testing program (Disassembly, Handling, Setting, Calibration and Storage).
- Supervise All Reinstatement activities per Units or Subsystems.
- Prepare and Supervise MCC Dossier per Systems.
- Establish a Calibration Lab for Pressure Safety Equipment's (PSV and Pressure Gauges).
- Prepare HAND OVER PROTOCOLS with Client teams.
- Establishment Material Control storing Program (Vessel Internals, Filter

| Dates           | <ul> <li>Elements, Control / Check Valves Internals).</li> <li>Build O&amp;M Material Stock as per System Criticality and Design Redundancy (Spare parts, Dynamic Seal Bearing).</li> <li>Build Workshops to Manage and solve any challenges may be delay Commissioning Activities as RT backlog, Punish killing Sequences, Welder Penalties, Punish Categorization, Advise Ticket Clearing).</li> <li>From Aug. 2016 till Jan. 2017</li> </ul>   |
|-----------------|---|
| Employer        | : BECHTEL   |
| Project         | : WND – West Nile Delta – Giza Fauom (Rosseta)  |
| Job title       | : Asset Refurbishment Field Engineer  |
| Job Description | • Prepare all repair method statement for valves, pumps, heaters, flare stack and Derick.   |
|                 | <ul> <li>Inspect repaired tasks after finishing task to handover.</li> </ul>  |
|                 | <ul> <li>Prepare all work permits as issuer and close work permits.</li> <li>Review all work procedures and safety rules TRA which is suitable with brown fields.</li> </ul>  |
|                 | <ul> <li>Follow up and apply vendor ITP and Repair MS.</li> </ul>   |
| Dates           | : From Dec. 2015 till Jul. 2016   |
| Employer        | : ORASCOM SIEMENS CONSORTIUM  |
| Project         | : Al-Burullus Combined Cycle Power Plant 4800MW   |
| Job title       | : Mechanical Technical Office Manager   |
| Job Description | <ul> <li>Review Drawings, Specification, PFD and P&amp;ID Design for all Mechanical Systems.</li> <li>Plan and Establish Execution or Constructability Plan Mechanical.</li> <li>Review all project Material Selection, Specifications, Pressure / Temperature material class, MTO, Purchasing Orders Status and LLI.</li> <li>Preparing project Reporting systems (Progress, Daily, Biweekly, Monthly).</li> <li>Preparations of Mechanical Method Statements, Risk Assessments, ITP, JHA.</li> <li>Preparation of Site Material Control System as Receiving, Traceability and Handover.</li> <li>Preparation and review Lifting Plans for critical lifting activities.</li> <li>Follow up, Monitoring, Control and Distribute all Engineering Deliverables IFC Drawings to site teams.</li> <li>Preparing, Follow up for piping Spool fabrication starting from material sorting / classification, Handling, Fit up, Welding, NDT, Installing and Hydro / Pneumatic tests.</li> <li>Monitor of Mechanical Activities Progress by S Curve, Mile stone, Earned Gain value.</li> <li>Solve any technical conflict, problems between disciplines during construction phase.</li> <li>Follow up and establish logs for TQ, RFI, SON, NCR and Site Instructions.</li> <li>Prepare Weld map, Hydro test Map, Welding books, Test Packages, Check list and Punish list for Piping, Vessels, Tanks and Skid mounted packages.</li> </ul> |

|                              | <ul> <li>Review of the final issue of PID's from point of view of commissioning and start-up, issuing of PID's modification according with project standards and regulations Also review set points for all instruments as SRV, SDV, ESDV, PT, TT, LT, PS, TS, LS.</li> <li>Preparation for Pre-commissioning, Commissioning and Turn over activities (plans, Manual, Sequences, Performance test, Ramp up, Close out Report).</li> </ul>  |
|------------------------------|--|
| Dates                        | : From Jan. 2015 till Dec. 2015  |
| Employer                     | : Worley Parsons – Consultant and Project Management (PMC)   |
| Project                      | : MAADEN Aluminum / Phosphate Plant  |
| Job title<br>Job Description | <ul> <li>Lead Mechanical Engineer (Standardizing Engineer)</li> <li>Review and Merge all Clients and project Mechanical Specifications to</li> </ul>   |
| Con Docomption               | <ul> <li>comply with API, ASME, BS and EN standards.</li> <li>Initiate and modify all Project Specifications as Piping fabrication, Piping tests, Storage tank welding, Pressure vessels, Control valve selections, Reciprocating compressors, Pumps internals selection, UG / AG piping specs, Hydraulic fluid power units, Heat Exchangers specs.,</li> <li>Supervise Review and Monitoring on all mechanical activity related to expansion of MAADEN projects as Client Representative.</li> <li>Advisor for All MOC (management of changes) for mechanical discipline.</li> <li>Site support and supervision on Natural Gas Pressure Reduction Station upgrading starting from engineering studies, HAZOP, Material selection, Spool Fabrication, Assembly, leak test and commissioning.</li> </ul>  |
| Dates                        | : From Jun. 2012 till Dec. 2014  |
| Employer                     | : RWE DEA Egypt (PMC)  |
| Project                      | : Desoqu Natural Gas Treatment Plant   |
| Job title                    | : Site / Construction Manager  |
| Job Description              | <ul> <li>Review Drawings, Specification, PFD and P&amp;ID Design for all Mechanical Systems.</li> <li>Overall management of owner's responsibilities and EPC contractor supervision during construction phase in order to ensure compliance with contract requirements.</li> <li>Review and Comment on all Plot Plan, FEED, PFD and AFC drawings before starting construction.</li> <li>Mange and monitoring project scope, budget, milestones and deliverables up to final completion - during construction phase.</li> <li>Define and manage all project resources and requirements.</li> <li>Ensure adherence to design and construction standards.</li> <li>Ensure coordination between project function groups including, but not limited to Design, Construction, Operation and Planning.</li> <li>Solve and find solutions for any construction problems sharing with discipline engineers and engineering office.</li> <li>Follow up material receiving at site yard with Material receiving procedure and reports (Sorting depend on installation priority, visual check, handling and laying methods).</li> <li>Manage, arrange and record all site meetings (daily, weekly, monthly).</li> <li>Follow up and analysis of time schedules, monthly reports, progress</li> </ul> |

measurements.

- Overall management responsibility over work site safety. •
- Ensuring safe working practices by applying all HSEQ rules and • regulations.
- Ensure contractor and subcontractors compliance with QA/QC • obligations under the associated contracts.
- Directing and guidance to third party consultants and engineers.
- Follow up all sub-contractors activities at site (resources, material, time plan, QC plans, daily work permits, progress reports, ITP, FQP, method statement, risk assessment for work package, lifting plans, PPE...).
- Directing and manage all Owner discipline Engineers teams at site as (Civil, Mechanical, E and I, Loss prevention, HVAC, Welding, Painting, Pre-Commissioning).
- Support activities post construction and ensure that project closings • are done in timely fashion in accordance with company policy and within target date.
- Follow up and monitoring piping and steel structure fabrication in workshops with client discipline engineer, contractor and third party teams.
- Participate in gas pre-commissioning and gas commissioning procedures and plans.
- Review all detailed Pre-commissioning and Commissioning Procedures for Oil / Condensate pumps, Natural gas compressors, NG Air Cooler heat exchangers, Blow down and Flare system.
- Ensure the smooth start-up of project Construction / Pre-Commissioning • / Commissioning & Start-up work by coordinating with EPC Contractor and PMC/Operation team, which the job includes start up and commissioning of static & rotating equipment's like vessels, columns, Reactors, pumps & compressors, steam and gas turbines etc.
- Arrange for SAT/ OSAT testing of process, static & rotating equipment & • packages inspection with Vendor / Client PMC group along with Sequences & logic testing by simulations. Enforcement of HSE regulations & Permit to work procedure, LOTO (Lock out & Tag out).
- Submit and approve MCC / ECC or Construction to Commissioning handover certificates for all Plant System.
- Ensure project billing is completed and contractor invoices are submitted for payment.

| Dates           | : | From Oct. 2010 till May 2012   |
|-----------------|---|--|
| Employer        | : | Hill International Egypt – PMC   |
| Project         | : | Dahshour Natural Gas Compressor Station  |
| Job title       | : | Lead Mechanical, Piping Engineer   |
| Job Description | : | <ul> <li>Review Drawings, Specification, PFD and P&amp;ID Design for all Mechanical Systems.</li> <li>Review and check all piping engineering documents and drawings.</li> <li>Check and supervise on all mechanical piping spool fabrication (fit up, 100)</li> </ul> |

- eck and supervise on all mechanical piping spool labrication (in up, dimension, orientation, and alignment).
- Arrange and control all site welders' qualification according to ASME IX • with third party as (BV or SGS).
- Check on calibration certificate for welding machines, heat treatment

electric ovens and also piping and fitting material certificate.

- Arrange with contractors at site, manpower and resources which meet the target productivity of project.
- Check on Material tractability plan and bill of material per each spool to be sure from right material for right spool.
- Follow up progress spool piping fabrication by dial inch or tone.
- Follow up and monitoring progress for (pipe rack, piping supports, piping line up / bolting up, piping coating / cladding for hot / cold systems and assembly of all valves with accessories by loops or by systems).
- Supervise on all UG piping construction and test (facilities and infrastructure) as sewage network, potable water network, firefighting network and hydrants, open drain and closed drain).
- Installation and placing of heavy equipment and skid mounted packages as Slug catcher, LTS units (low temperature separation units), heat exchangers, gas compressors, gas turbines, gas scrubbers, and knock out drum, Condensate pumps, glycol skid units and flare stack.
- Supervise on site Storage tank building (pressurized and nonpressurized) as settlement, nozzle orientation, hydrostatic test, vacuum test and review all QC/ QA reports related to oil, condensate, produced water tanks.
- Review, Supervise and Approve All Hydrostatic Tests procedure for All Piping Systems.
- Prepare and Review All mechanical Punch Lists and Follow Punch Clearance for All Mechanical Systems as HVAC, Potable /Utility water, Utility Air, Nitrogen network, OD, CD, Raw Gas piping system, all Firefighting network, Cold/Hot insulation.
- Check, Supervise and approve all Piping Flushing, Chemical Cleaning, Blowing and Rupture Tests. As per NORSOK STD. L-004-Ed2Sep2012.
- Mechanical P&ID checker before pre-commissioning phase.
- Prepare all check lists for all mechanical systems (hydrocarbons piping, pumping skids, HVAC, utility piping systems, infrastructure piping UG, tanks, pipe racks, ...).
- Review tagging numbering systems for all valves, filters, scrapers, packages.
- Supervise on All Piping Passivation and hot Oil Flushing Activities.
- Supervise on CLT (commissioning leak test) and GLT (gross leak test) Activities.
- Review all bolts torque values according to ASME B16.5 especially for skids terminal flanges.
- Supervise on flange management activities for all flanges at plant.
- Prepare and Participate in Pre-Commissioning, Commissioning and start up Plans.
- Supervise and advise for all the pre-commissioning and commissioning activities of the process oil / gas plant.
- Performing Pre-commissioning activities like LP leak test, HP leak test, Nitrogen Purging, Hydro testing of Vessels, Water flushing, Chemical Cleaning, etc.
- Development of safety procedures to be used 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.

|                 | <ul> <li>Review all setting points and calibration certificates of PRSV, ESDV, PT, TT, LT, IP converters.</li> <li>Review and check loss prevention systems logic as Fire, Gas and Smoke Alarms.</li> <li>Planning with commissioning leader to establish commissioning/start-up network priorities and durations.</li> <li>Review of test Package and check the limit of test pack. Confirm all valves are set to the pre-test position shown in the system P&amp;ID limits &amp; Verify that all instruments have been installed, tested and connected.</li> <li>Review and Check All Commissioning Vendor Procedure, SAT (site acceptance test) and performance test for 72 hr. at least.</li> <li>Preparing and participate in HAND OVER Report.</li> </ul>  |
|-----------------|--|
| Dates           | : From Jun. 2009 till Oct. 2010  |
| Employer        | : QATAR GAS GROUP – TAQA ARABIA – EPC  |
| Projects        | : • Development of small and medium industrial zone (80Km NG pipelines HDPE100)  |
|                 | <ul> <li>Main pressure reduction station (PRS) with capacity 32000 m3/hr</li> <li>Luseil City (25Km pipe network – HDPE100)</li> </ul>   |
| Job title       | : Construction Manager   |
| Job Description | <ul> <li>Prepare and supervise on all gas pipeline projects technical proposals (Design, Material Selection, Routing, Hydraulic Calculation, Construction method statement, Test Procedures, Pigging sequences, Drying, Commissioning) in tender phase.</li> <li>Prepare and review all commercial proposals and cash flow for pipeline projects.</li> <li>Supervise on all technical activities related to projects (human resources, construction procedures, QC/QA plans, HSEQ, ITP, Hydrostatic tests, Cleaning, Drying up to Gas commission.</li> <li>Holding meetings (weekly / monthly) with Client to discuss progress status by S curve, site challenges, billing and commercial issues.</li> <li>Supervise and follow up for all site logistics as material delivery, welding machines and generators maintenance plans, hand tools availabilities.</li> <li>Hand over and close out for project with client teams.</li> </ul> |
| Dates           | : From Oct. 2007 till Jun. 2009  |
| Employer        | : NAT GAS (PMCO)   |
| Job title       | : Technical Proposal Manager   |
| Job Description | <ul> <li>Review Technical Tender Scope related to natural gas pipeline, gas reduction stations, SNG stations, LPG stations.</li> <li>Prepare material submittal, selections and MTO for valves, piping</li> </ul>  |
|                 | <ul> <li>network, vessels.</li> <li>Initiate typical drawing and details for assembly and site construction activities.</li> <li>Initiate and review Technical Procedure as WBS, WPS, PQR, Coating, Painting, and Start-up, Close out.</li> <li>Prepare all Project Management plans as WBS, CBS, Time Plan, Man Hour, Resources Histogram, Target calculations.</li> <li>Prepare project visibility study with calculation of projects dry cost.</li> </ul>   |

| Dates<br>Employer<br>Job title<br>Job Description | <ul> <li>From Jun. 2005 till Oct. 2007</li> <li>HOUSE GAS TAQA GROUP (EPC)</li> <li>Head of Technical Tests &amp; Commissioning Dept.</li> <li>Design, testing, commissioning, technical inspection and Maintenance<br/>for gas networks and pipelines (poly ethylene PE100 and Carbon Steel).</li> <li>Testing and commissioning with very wide range of working pressure up<br/>to 70 bar (Operating pressure).</li> <li>Pneumatic test &amp; hydrostatic tests for (transmission pipelines lines) up to<br/>105 bar.</li> <li>Pipeline cleaning, pigging, watering, dewatering, drying, commissioning<br/>and gas in.</li> <li>Selection, assembly, testing, setting and maintenance of the pressure<br/>reduction Stations (domestic PRMS, industrial PRMS and small pressure<br/>modules).</li> <li>Construction of nature gas poly ethylene networks PE80, PE100.</li> <li>Prepare special procedure for gas network repair and maintenance in<br/>emergency cases.</li> <li>Test and commissioning for LPG networks in resorts and compounds.</li> <li>Complete design for single carbon steel pipeline which used in industrial<br/>factories (Material selection, hydraulic calculation, wall thickness and<br/>cathodic protection).</li> <li>Prepare ITP (inspection test plan) and all HSE related permits and risk<br/>assessments.</li> <li>Develop and initiate P/V plots, P/T charts, P/T records to check<br/>soundness and integrity of transmission pipelines.</li> <li>Good user for Dead weight Tester (for calibration pressure gauges,<br/>pressure leakage measurement in transmission pipelines and NG piping<br/>systems).</li> <li>Prepare and implement procedure for tie in points for new pipeline<br/>branching (steps and material selection) according to IGE TD1.</li> <li>Prepare and implement procedure for tie in points for new pipeline<br/>branching (steps and material selection) according to IGE TD1.</li> <li>Prepare and implement pipeline drying procedures using superheated<br/>hot air and nitrogen methods.</li> <li>Prepare Natural Gas commissioning procedure for transmission pipeline<br/>according to ASME 31.8 and IGE TD 1 edition 4.</li> <l< th=""></l<></ul> |
|---|--|
| Dates<br>Employer<br>Job title<br>Job Description | <ul> <li>From Jun. 2000 till Oct. 2006</li> <li>EGYPTIAN TOWN GAS (PMCO)</li> <li>Pressure Reduction &amp; Odorant Injection Stations Engineer</li> <li>Operation, maintenance &amp; setting of pressure reduction stations are to 7 bar or 40 bar to 4 bar and small regulators) single and double stage.</li> </ul>  |

- Operation & maintenance of natural gas odorant stations.
- Setting and maintenance of gas / liquid CONTROL VALVES as fisher type with PI and PID controllers.
- Operation & setting of flow computers as Daniel instromet sarasota solartron.
- Calibration of pressure transmitters with hydraulic pump & voltmeter.
- Calibration and setting all gas relief valves by using dead weight tester.
- Good dealing with hydro pneumatic (gas over oil) actuators single and double acting "Operation Maintenance" as biffi and rotork which used with large ball valve.
- Maintenance of polyethylene pipelines and networks.
- Calculation of gas quantity based on volume flow rate equation.
- Responsible for south industrial zone (Helwan and El-Tebeen) maintenance and Operation for large PRS in factories as National Steel, Al Qawmeiya cement factory, Helwan cement factory, Torah cement factory, South Cairo Power Station, El-Tebeen Power Station, Aiad for steel factory, and all CNG modules in this area.
- Cathodic protection monitoring the cathodic protection readings for the buried pipeline using copper / copper sulphate cell, for sacrificial anode (Zn, Mg) cathodic protection systems.
- Design cathodic protection systems using anodes systems for buried pipes.
- **Field of experience :** Construction Manager for Processing and Facility Oil / Gas Plant, Pressure Gas Reduction Plant, Compressors Gas Plant – Natural Gas / Oil Transmission Pipeline (CS / HDPE100).
  - Pre-Commissioning, Commissioning and Start-up Lead Engineer for Oil and Gas Pipelines, Facility Plants (onshore / offshore) and Refineries.
  - Lead Mechanical Piping Fabrication, Installation, Flushing and Testing Engineer.
  - Special Skills:
    - Maintenance all Type of Hydraulic Pumps as Axial Piston, Vane, Gear.
    - Design and Manufacture of Power Units and Large Pneumatic Circuits.
    - Design and Manufacture of Presses up to 1000 Tons.
    - Complete Design for Hydraulic and Pneumatic Circuits and Cylinders.
    - Good dealing with All Types of Workshop Machines as Turning, Milling Shaper, Drilling, Shear, Metal Saws and Bending Machine.
  - STANDARDS In Natural Gas Field dealing with several Standards as: IGE TD3, IGE TD 13, IGE TD1, API 5L, TRANSCO BG DIS5.5, BG DIS 5.6, ASMI 31.8, ASME 31.3, ASME 31.4, ASME B16 all group, GIS PL2 ALL PARTS, EN 1555 ALL PARTS, API 1104, API 650, API 617, API 618, API 686, NORSOK for on / offshore plants Standards, ALL GAS SPECS. FOR ADNOC, WOQOD, QP AND GULF AREA RECOMMENDATION.