

Mechanical Commissioning, Start-up & Operation Team Leader

Holds a B. Sc. in Mechanical Power Engineering and has over 16 years hands-on experience working in commissioning, start-up and operation at several Power Plants.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 22/12/1980
Gender : Male
Marital Status : Married
Residence : Currently KSA

EDUCATION

: B. Sc. in Mechanical Power Engineering, Cairo University, 2002

LANGUAGES

Arabic : Native Language
English : Very Good

COMPUTER SKILLS

: Windows, MS Office (Word, Excel, Power Point), Internet
: AutoCAD 2D
: Visual Basic 6

TRAINING COURSES AND CERTIFICATIONS

- : Training course at SIEMENS POWER GENERATION, ERLANGEN – GERMANY (Jun./Jul. 2006):
 - Introduction to the Gas Turbine Plant.
 - Mechanical, Electrical and I&C Part.
 - Plant Operation.
 - Overview Process Control System Teleperm XP / OM 650.
 - Process operation with operating terminals (OT'S).
 - Process monitoring, fault analysis, alarm sequence display.
 - Process information with curve and bar displays, operating point displays and logs.
 - Controller functions overview.
 - Process start-up, operation and shut-down.
- : Training course in Operation for Heat Recovery Steam Generator and BOP at CMI ENERGY (Heat Recovery systems), LIEGE – BELGIUM (Nov./Dec. 2007).

- : Training course at SKODA PRAHA & SIGMA, PRAGUE – CZECH REPUBLIC (Dec. 2007):
 - Operation for Heat Recovery Steam Generator and Auxiliaries.
 - Operation for the Sigma's Pumps.
- : Operation Training for Siemens Gas Turbine in El-Kureimat II Power Station, by SIEMENS Trainers.
- : Operation Training for OVATION OV010 Control System in El-Kureimat II Power Station, by EMERSON Trainers (Sep. 2008).
- : Operation Training for Heat Recovery Steam Generator and BOP in El-Kureimat II Power Station, by CMI & SKODA PRAHA Trainers (Jun./Jul. 2008):
 - HRSG water survey.
 - HRSG conservation.
 - HRSG heating release.
 - HRSG alarms.
 - HRSG tripe.
 - HRSG logics.
- : Operation Training for Hitachi Steam Turbine in El-Kureimat II Power Station, by HITACHI Trainers (Jun./Jul. 2008):
 - Overview process control system MARK VI.
 - Process start-up, operation and shut-down.
 - Overview Steam Turbine and its Auxiliaries.
 - Mechanical, Electrical Equipment operation and troubleshooting.
- : Operation Training for Combined Cycle in Damietta Power Station (Sep./Oct. 2004).
- : Operation Training for Siemens Gas Turbine in Nubaria Power Station (Mar./Apr. 2006).
- : Diligently and with merit completed training in 10H Safety & Health for Construction Industry in accordance with OSHA - CER 1926 (ID: 2017030667).

CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From Jan. 2018 till now
- Employer** : [EGYPTROL](http://www.egyptrol.com), Al Toukhi Subcontractor
- Project** : Conversation of Hail-2 Simple Cycle to Combined Cycle Power Plant, KSA:
 The facility is a 4 x 4 x 1 combined cycle configuration consisting of:
 - 4 SIEMENS SGT6-2000E gas turbine with control systems T3000.
 - 4 AMEC FOSTER WHEELER HRSG two pressure with control systems T3000.
 - One SIEMENS SST-800 Steam Turbine 165 MW with control systems T3000.
 - Direct Air Cooled Condenser.
- Job title** : Mechanical Commissioning, Start-up & Operation Team Leader
- Job Description** :
 - Reviewing drawings and specifications to ensure a thorough understanding of plant operational and safety related issues.
 - Applying the project Commissioning Plan in the execution of the work.
 - Lead and Coordinate HRSG & BOP Commissioning activities.
 - Lead, manage and coordinate Operation activities, training, and vendor service specialists at site and office.

- Reporting to the Commissioning manager.
- Conduct meeting with commissioning manager to review testing, commissioning progress and HSE conformance on daily and occasionally more frequent basis as well as meetings with the vendors to resolve any equipment related problems.
- Analyse and address critical areas of progress/delays in testing and commissioning.
- Organizing a commissioning team, incorporating the training and helping recruiting the required staff and operation team.
- Ensuring that all safety and precautionary requirements and procedures are followed during the commissioning process in line with the commissioning schedule.
- Conduct commission ability reviews of project documents.
- Leading the pre-commissioning the (Start-up) Sigma steam blowing.

Dates : From Sep. 2016 till Dec. 2017

Employer : ORASCOM CONSTRUCTION

Project : New Capital Combined Cycle Power Plant 4800MW, Cairo:

- 8 Siemens (SGT5-8000H) Gas Turbines 400MW.
- 8 Nem HRSG triple pressure.
- 4 Siemens Steam Turbines (380MW).
- Direct air cooled condenser.

Job title : Lead Mechanical Commissioning & Start-up Engineer

Job Description : Represent Orascom the main contractor in the site to do:

- Responsible for BOP equipment's (firefighting system, water treatment plant, compressed air system, service and Demin water pump station, HVAC systems,...) for doing pre-commissioning, commissioning activity, function tests and supervise the operation of all BOP equipment's, walk down inspection for HRSG, punch list, prepare HRSG for Chemical Cleaning.
- Responsible for Gas turbine systems (lube oil, lifting oil, cooling water, deluge and sprinkler system) for doing pre-commissioning such as air blow and flushing.
- Act as the commissioning focal point for coordinating commissioning with the construction teams and project engineering disciplines.
- Lead a team of commissioning engineers, supervisors and technicians for the development and execution of pre-commissioning and commissioning activities.
- Provide supervision and guidance during the commissioning of discipline related activities.
- Provide detailed commissioning records including daily reports and shift handover notes.
- Using Manuals and project specification to prepare Commissioning documentation (instructions, procedures and check lists).
- Review handover packages discipline site activities and handover package reviews and audits.

Dates : From Mar. 2016 till Aug. 2016

Employer : SHANAHAN ENGINEERING LTD

- Project** : PP12 (2175MW) Combined Cycle Power Plant, Riyadh, Saudi Arabia
The facility is a 4x4x1 combined cycle consisting of:
- 4 GE (Frame 7FA.05) gas turbines Mark VIe Control System.
 - 4 ALSTOM HRSG triple pressure reheat cycle YOKOJAWA Control System.
 - 1 ALSTOM Steam Turbine (380MW) two casing triple pressure reheat ALSPA Control System.
 - Direct air cooled condenser.
- Job title** : Mechanical Commissioning, Start-up & Shift Charge Engineer
- Job Description** :
- Performed pre-commissioning and commissioning activities: walk down inspection, punch list, prepare HRSG for (Start-up) Sigma steam blowing and Sigma steam blowing.
 - Implementing start-up, normal, shut down operations and emergency handling as per operation manual and with control systems Mark VIe, YOKOGAWA and ALSPA.
 - Monitoring HRSGs, turbines, generators, pumps and all equipment's.
- Dates** : From Oct. 2015 till Mar. 2016
- Employer** : [EGYPTROL](#), AC Boilers Subcontractor
- Project** : Suez Thermal Power Plant (1x650MW):
- ANSALDO 2067 T/Hr. SH flow, 1729 T/Hr. RH flow, front & rear burners low NOX burner TEA-BA dual fired (N.G./HFO) drum type, natural water circulation, reheat boiler with 2 x 50%FD/GR fans, air heater, Soot blowers, CEMS, etc.
 - ALSTOM STG with HP, IP and LP cylinders, H2 cooled Generator and see water cooled condenser with HP, LP Steam Bypass systems.
- Job title** : Mechanical Commissioning & Control Room Operator
- Job Description** :
- Responsible for the safe and efficient tests commissioning of boiler (2100 ton/hr.) and auxiliary system such as: lube oil for forced draft fans & gas recirculation fans, closed cooling water system, firefighting system, fuel oil and fuel gas systems, atomizing steam to heavy oil, and atomizing air for light oil by Control System (800XA) ABB Company & (IA) FOXBORO SCHNEIDER-ELECTRIC Company.
 - Performed pre-commissioning and commissioning activities: walk down inspection, punch list, prepare boiler for chemical cleaning, all dampers mechanical adjustment, prepare boiler for first fire and steam blowout, work request sheet, commissioning check list site and pre-start-up.
 - Coordination mechanical commissioning team to carry out all jobs according to Ansaldo Caldaie recommended procedures: Blowing up- air line, filling up to boiler, and leak test for fuel gas lines, closed cooling lines, boiler preservation, flushing lube oil line for forced draft & gas recirculation fans.
- Dates** : From Apr. 2015 till Oct. 2015
- Employer** : [EGYPTROL](#), GE Energy Subcontractor
- Project** : Cairo East Station (2x25MW) TM2500
- Job title** : Mechanical Commissioning, Start-up & Shift Charge Engineer

- Job Description** : • Mechanical Commissioning which included Gas blowing, Fuel oil flushing, Lube oil flushing, Control oil flushing and Start-up testing.
• Shift Charge Engineer for GE Gas Turbine 2x25MW TM2500 Dual Fuel, WOODWARD Programmable control system.
• Communicate with dispatchers to match production with system requirements.
• Monitoring turbines, generators, transformers, all motors, pumps and all equipment's.
- Dates** : From Aug. 2013 till Apr. 2015
- Employer** : [EGYPTROL](http://www.egyptrol.com), SAMSUNG C&T Subcontractor
- Project** : Qurayyah Independent Power Plant (QIPP) 4000MW (6x655MW) Combined Cycle Power Plant, Dammam, Saudi Arabia:
The facility is a 2 on 1 combined cycle by Siemens T3000 control consisting of:
• Twelve (12x229MW) SIEMENS SGT6-PAC 5000F Dual Fuel, Ultra Low NOX (ULN) gas turbine generating units (GTGs).
• Twelve (12) BHI HRSG (328T/H, 89BARS) HP, (46T/H, 8BARS) LP, Staggered, natural circulation type with horizontal gas turbine exhaust gas flow through vertical tube heat transfer sections heat recovery steam generators (HRSGs).
• Six (6x226MW) SIEMENS SST6-4000 steam turbine generators (STGs).
- Job title** : Mechanical Commissioning Engineer
- Job Description** : Performed pre-commissioning and commissioning activities:
• Natural Gas Station consisting of: (Two Emergency shut-down (ESD) valves, Two Dry scrubber, Two Filter separators, Gas metering station, Gas chromatograph analyzer, 13 Atlas Copco gas compressor, Seven Dew Point heater type, PRV area contains seven lines).
• Walk down inspection, punch list, and prepare HRSG for (Start-up) Sigma steam blowing and Sigma steam blowing, GT's tests at start-up.
- Dates** : From Jun. 2006 till Jul. 2013
- Employer** : Upper Egypt Electricity Production Company (UEEPC)
- Project** : El-Kureimat II (750MW) Combined Cycle Power Station:
• (2x250MW) SIEMENS SGT V94.3A Gas Turbine "Siemens TXP Operating System".
• 2 x Vertical HRSG at three pressure levels (HP, IP, LP) CMI HRSG and SKODA PRAHA for Auxiliaries "Ovation Control System".
• (1x250MW) Steam Turbine Hitachi STG "Mark VI Control System".
- Job title** : Commissioning, Start-up, Control Room Operator & Shift Charge Engineer
- Job Description** : • Employed as Commissioning & Start-up / Shift Charge Engineer.
• Communicate with dispatchers to match production with system requirements.
• Monitoring turbines, generators, transformers, all motors, pumps and all plant equipment's.
- Dates** : From Jun. 2004 till Jun. 2006
- Employer** : Upper Egypt Electricity Production Company (UEEPC)
- Project** : El-Kureimat I Power Plant (2x650MW)

- Job title** : Field Operator & Control Room Operator
- Job Description** :
- Responsible Field Operator.
 - Control Room Operator of Boiler Babcock and Wilcox Elpaso. Forced draft/natural circulation Using either Gas or Oil fired or combination.
- Field of experience** : Over 16 years experience in Mechanical commissioning & start-up / operation:
- Mechanical Commissioning & Start-up activities:
 - Solo test, Heat run tests, Function Tests for all Equipment's, Air blowing, Hydraulic tests, Fuel oil flushing, Lube oil flushing, Water system flushing, Chemical cleaning, Turning Gear Operation, GT's First Firing by Gas or Oil, Steam blowing (continues or pulsations), Bypass operation, Loops check, DCS signals and logics check, Steam admission and warm up speed, Automatic Turbine Tester (ATT), Dummy synchronizing, Runback test, Partial load rejection, Full load rejection, Cold start-up, Warm start-up, Hot start-up, Pre-Performance Test, actual Performance Test (PT), Reliability Test Running (RTR), Preservation HRSG and steam lines.
 - DCS operating to ensure reliable supply of utilities to site customers. This includes alarm response, trending of key system performance parameters, troubleshooting, work request generation, log book entries and communication to customers, field technicians, maintenance, and engineering support.
 - Operation activities:
 - Preparing daily shift log report and all other operational reports, trip reports and all required documents, Guide and train sub ordinates.
 - Line up of the unit and its auxiliaries, Changeover of equipment's, routine testing of protection system and annunciation system.
 - Monitor plant operations and handle emergencies including shut-down of units and load throw-off to control generation as per requirement as following in:
 - GT: GE (Frame 7FA.05) control system Mark VIe, GE (TM2500) control system WOODWARD PROGRAMMABLE, Siemens (SGT5-8000H) control system T3000, Siemens (SGT6-PAC 5000F) control system T3000, Siemens SGT (V94.3A) control system TXP.
 - ST: SIEMENS SST-800 and control system is T3000, Alstom and control system is ALSPA, Siemens and control system is T3000, Hitachi control system is Mark VI.
 - HRSG: AMEC FOSTER WHEELER and control systems is T3000, Alstom and control system is YOKOJAWA, BHI and control system is T3000, CMI and control system is Ovation.
 - Boiler: Babcock and Wilcox ELPASO & Ansaldo Caldaie.
 - All BOPs: Boiler Feed Water Pumps, Condensate Pumps, Atlas Copco Gas Compressors, DPH dew point heater, Air compressors, Diesel generators, Sea water Intake, CCW, CO2 systems, Firefighting.
 - Check all defects then Issue and cancellation permit to Work (PTW - hot work, cold work, height work, confined space permit) with the

method of statements, safe isolation, personnel safety HSE and equipment safety by discussion with Operation and HSE Management. Co-ordinate with different maintenance and service department to get a work done.

- Chemical dosing and sampling unit's preparation, preservation of HRSGs.
- Operating Black start-up and maintain the safe shutdown for all the plant.