

100091-MEC-OS-E-2001
Mechanical Commissioning & Start-up Engineer

Holds a B. Sc. in Mechanical Power Engineering and has over 15 years hands-on experience working in operation, commissioning and start-up at several Power Plants.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 26/10/1975
Gender : Male
Marital Status : Married
Residence : El-Behira

EDUCATION

: B. Sc. in Mechanical Power Engineering, Menoufia University, 2001

LANGUAGES

Arabic : Native Language
English : Very Good

COMPUTER SKILLS

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

TRAINING COURSES AND CERTIFICATIONS

- : Operation and Maintenance of Combined Cycle Stations, Damanhour Power Station (Feb./Mar. 2004).
- : Basic Operation Training of Gas Turbine SIEMENS V94-3A (Introduction to the plant, Mechanical, Electrical and I&C the parts of gas turbine), Damanhour Power Station (Apr. 2004).
- : Basic Operation Training of Gas Turbine SIEMENS V94-3A (Introduction to the plant, Mechanical, Electrical and I&C the parts of gas turbine), Lubbenau – GERMANY (Jul./Aug. 2004).
- : I&C Operator course (SIEMENS V94-3A): automation system AS 620, System overview TELEPERM XP, OM 650 function packages, dynamic function diagrams, operation with operating terminals (OTs) process, GT operation, operating point displays and logs.
- : Mechanical Maintenance training of Gas Turbine (SIEMENS V94-3A): Turbine (GT) Manufacturing, GT Maintenance, GT Service Plant Operation, Berlin – GERMANY (Dec. 2005).
- : Operation and Maintenance Training Alstom Power Plant Control System (DCS) Alspa p320 Distributed Control System, MDEPC (15 days).

CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From Nov. 2016 till now
- Employer** : SIEMENS AG
- Project** : BURULLUS POWER PLANT IN EGYPT CCPP 4800MW
- Job title** : Mechanical Commissioning & Start-up Engineer
- Job Description** :
- Carry out all commissioning and pre-commissioning activities of fuel gas system from gas reducing system to gas compressor and gas turbine filter skid included pressure test, blow out, purge by nitrogen and nitrogen container generation commissioning.
 - Carry out all commissioning and pre-commissioning activities of forced cooling system(generator cooling and seal oil cooling), co2 system, water firefighting system, cooling tower, circulating system, service water system and closed cooling system.
 - 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 BOP commissioning activities.
 - Lead, manage and coordinate Operation activities and vendor service specialists at site and office.
 - Reporting to the SIEMENS 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.
 - Ensure all construction activities are completed prior to taking up the system for commissioning.
- Dates** : From Mar. 2016 till Jul. 2016
- Employer** : SHANAHAN ENGINEERING LTD
- Project** : PP12 (2175MW) POWER PLANT IN KSA:
PP12 Electric Power Company 2175MW Project is EPC project and approximately 150 km away of Riyadh city in Saudi Arabia. The facility is a 4 x 4 x 1 combined cycle configuration consisting of:
- 4 GE (Frame 7FA.05) gas turbines
 - 4 ALSTOM HRSG triple pressure reheat cycle
 - One ALSTOM Steam Turbine 380MW two casing triple pressure reheat
 - Direct air cooled condenser
- Job title** : STEAM TURBINE & HRSG & BOP LEAD and 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 SHANAHAN ENGINEERING LTD 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.
- Analyze 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.
- Ensure all construction activities are completed prior to taking up the system for commissioning.
- Leading the pre-commissioning the (start-up) Sigma steam blowing.

Dates	: From May 2015 till Dec. 2015
Employer	: EGYPTROL – Commissioning Subcontractor for GE
Project	: West Damietta Plant Project (4x125MW), Egypt
Job title	: Gas Turbine Commissioning & Start-up Leader Engineer
Job Description	: Carry out all commissioning and pre-commissioning activities of gas turbine (GE 9E): <ul style="list-style-type: none"> • Lube oil system. Flushing and test and pressure Adjustment. • Closed cooling system flushing. • Fuel gas system air blowing and leak test. • Fuel oil system. Flushing, tests, leak test and flow test. • Water Injection System (Dry Low NOX – Dual Fuel), flushing and tests. • Control oil system. Flushing, pressure Adjustment for control oil and accumulator N2 pressure. • Instrument air system. Compressor heat run test, instrumentation air blowing. • Inlet guide vane IGV adjustment. • Gas turbine Fire Protection System. • Turning gear system. • Air intake system. Pulse air filter self-cleaning system commissioning and puff test. • PEECC package HVAC commissioning and start-up. • Cooling Air /Compressor Bleed System Air blowing. • Compressor Water Wash System. Flushing, orifice adjustment, nozzle check. • Purge Air System. Air blowing and tests. • Start-up Tasks: Initial Roll test, Over speed Trip Test, Start-up Sequence: Pre synchronous. • Turbine Check at 3000 rpm, Start-up tasks Full Speed No Load, Start-up Tasks Initial.

- Synchronization (Base Load), Start-up Tasks – Performance Test.

Dates	:	From Jun. 2013 till Feb. 2015
Employer	:	EGYPTROL – Commissioning Subcontractor for SAMSUNG C&T
Project	:	Qurayyah Independent Power Project (6x750MW) – Combined Cycle, KSA
Job title	:	Gas Turbine Commissioning & Start-up Leader Engineer
Job Description	:	<ul style="list-style-type: none"> • The Qurayyah IPP project is approximately 100 km south of the port of Dammam on the coast in the Eastern province of the kingdom of Saudi Arabia. The facility is a 2 on 1 combined cycle configuration consisting of twelve (12) Siemens SGT6-PAC 5000F gas turbine generating units (GTGS), twelve (12) heat recovery steam generators (HRSGs), six (6) Siemens SST6-4000 steam turbine generators (STGs), and six (6) sea water condensers. • The Siemens Energy, Inc. SGT6-5000F (5) Gas Turbine includes a 13-stage high efficiency axial flow compressor with variable inlet guide vanes (IGVs) and three rows of variable guide vanes (VGVs). It also includes a combustion system featuring advanced cooling and multi-fuel capability. Within this system is an installed combustion chamber, which houses 16 individual combustors. These combustors are arranged in a circular pattern around the circumference of the turbine assembly. The four-stage reaction-type turbine incorporates an advanced cooling design. Corrosion resistant coatings and thermal barrier coatings are also integrated into the SGT6-5000F (5) turbine design in order to improve part longevity. • Carry out all commissioning activities of gas turbine (SIEMENS SGT6-PAC 5000F) for: <ul style="list-style-type: none"> - Fuel gas system air blowing and leak test. - Fuel oil system. Flushing, nozzle test, bucket test, flow test, leak test and flow divider skid Test. - Water Injection System (Dry Low NOX– Dual Fuel). Flushing and tests. - Lube oil system. Flushing and test and pressure Adjustment. - Control oil system. Flushing, pressure Adjustment for control oil and accumulator N2 pressure. - Inlet guide vane IGV and variable guide vanes VGVs adjustment. - Instrument air system. Compressor heat run test, instrumentation air blowing. - Gas turbine Fire Protection System. - Turning gear system. Low speed, high speed turning gear motor solo test and heat run test. - Air intake system. Pulse air filter self-cleaning system commissioning and puff test. - Generator and collector blower. Commissioning. - PCC package and SFC package HVAC commissioning and start-up. - Kettle Boiler and Rotor Cooling System. Air blowing by startup frequency convertor (SFC) at speed 850 RPM. - Cooling Air / Compressor Bleed System and Disc Cavity Cooling System. Air blowing by start-up. - Frequency convertor (SFC) at speed 850 RPM. - Compressor Water Wash System. Flushing and tests. - High load Purge Air System. Air blowing and tests. - Pre-start Simulations (SFC/Gas).

- Start-up Tasks: Initial Roll test, Over speed Trip Test, Start-up Sequence: Pre-synchronous.
- Turbine Check at 3600 rpm, Start-up tasks Full Speed No Load, Start-up Tasks Initial.
- Synchronization (Base Load), Start-up Tasks – Performance Test.
- Operate the gas turbine SiemensSGT6-5000F (5) from DCS using SPPA T3000 Control System.

Dates : From May 2011 till Jun. 2013
Employer : [EGYPTROL](#), Seconded to TOSHIBA Plant Systems & Services Corporation
Project : Sidi Krir Combined Cycle Power Station 750MW (2x2x1)
Job titles : Commissioning & Start-up Engineer & Warranty Engineer
Job Description :

- Carry out all commissioning and start-up activities as per manufacture recommendation for GTG, HRSG and STG.
- Commissioning and start-up activities for all BOP systems.
- Warranty Engineer.

Dates : From Feb. 2010 till May 2011
Employer : [EGYPTROL](#), Subcontractor for NEM – a Dutch Boiler Fabricating Company
Project : Sidi Krir Power Plant 750MW, 2 HRSG modules
Job title : Commissioning & Operation Engineer
Job Description :

- Carry out all commissioning activities cold, hot commissioning and troubleshooting.
- Start-up / shutdown sequence procedure for two heat recovery steam generators with (HP, IP, LP) drums.
- HRSGs DCS Operation Engineer on daily basis to achieve the optimum operating conditions and keep the power station in the highest available Level of performance and operating conditions.

Dates : From Nov. 2009 till Feb. 2010
Employer : [EGYPTROL](#), Commissioning & Operation Subcontractor for BoP Electrical and Mechanical Contractors TOSHIBA/TOYOTA
Project : El-Atf Combined Cycle Power Plant 750MW
Job title : Commissioning & Start-up Engineer
Job Description : Installation, testing, commissioning and start-up for the following BOP systems:

- Instrument air compressors & Service air compressors & Air Dryer.
- Steam Blow for HP Line, IP Line, LP Line.
- Horizontal Pumps & Vertical Sump Pumps.
- High pressure feed water pumps.
- Low pressure feed water pumps.
- Circulating pumps.
- Condensate pumps.
- Service water pumps.
- Participate in chemical cleaning for HP Line, IP Line, LP Line & Condensate Lines systems.
- Firefighting system.
- Electrical Emergency Diesel Engine.
- Service Gas System (CO2, H2 & N2).

- Control Valves.
- Operate the System of Plant (B.O.P.) from DCS.
- Using YOKOGAWA System (CENTUM CS3000).
- Operate the System Of Plant (B.O.P.) from Local Control Panels (LCP).

Dates : From Dec. 2004 till Nov. 2009

Employer : Middle Delta Electricity Production Company

Project : Nubaria Power Station I & II (2x750MW):
Two modules, each module consists of:

- Two Gas Turbines CTG 500MW SIEMENS V94-3A.
- Two horizontal HRSGs ALSTOM with one deaerator storage tank and three drums (HP, IP, LP).
- One Steam turbine generation STG 250MW MITSUBISHI.
- 220KV switchyard, 500KV switchyard, four tie transformers 500/220KV.
- Medium and Low Voltage switchgears.

Job title : Control Room Operator, then Shift Charge Engineer

Job Description :

- Participated at commissioning and start-up of four Siemens CTGs 250MW.
- Participated at commissioning and start-up of four horizontal HRSGs.
- Participated at commissioning and start-up of two Mitsubishi STGs 250MW.
- Safe operation for GTG Siemens 250MW x 4 UNITS and all auxiliaries during the reliability period.
- Energizing of 500KV and 220KV substation.
- Switchgear 6.3KV and MCC 400 v for all plant auxiliaries.
- Responsible for the operation of three (3) generation blocks which included but not limited to the following:
 - Four (4x250MW) Siemens GTG.
 - Four (4) Alstom HRSG.
 - Two (2x250MW) Mitsubishi STG.
 - Two (2x250MW) GE GTG.
 - Two NEM HRSG.
 - One (1x250MW) Alstom STG.
 - 220/500KV Substation.
- Attending first fire to gas turbine with Siemens operator engineers.
- Standing-up as Operator Shift Engineer during commission and generator protection tests.
- Responsible to estimating efficiency of gas turbine in load rejection test.

Dates : From Jun. 2003 till Dec. 2004

Employer : West Delta Electricity Production Company

Project : Damanhour Combined Cycle (160MW) Power Station

Job title : Control Room Operator

Job Description : Responsible for safe operation of:

- 4 Hitachi gas turbines (25MW).
- 4 Vertical HRSGs.
- 1 GE steam turbine (60MW).

- Field of experience :**
- Solid experience in different facets of Power Plant industry.
 - Strong understanding with different EPC philosophies in power generations and transmissions.
 - Well-exposed and experienced in the installation and operation of the following:
 - Siemens Gas Turbine SCC5- 8000H (400MW).
 - Siemens Gas turbine SGT6-PAC 5000F (230MW).
 - Siemens Gas Turbine V94.3A - 4000F (250MW).
 - GE Gas Turbine (250MW).
 - Mitsubishi Gas Turbine (250MW).
 - Hitachi Gas Turbine (25MW).
 - Mitsubishi Steam Turbine (250MW).
 - Siemens SST6-4000 steam (230MW).
 - Ansaldo Steam Turbine (250MW).
 - Alstom Steam Turbine (360MW).
 - NEM Horizontal HRSG.
 - Alstom Horizontal HRSG.
 - BHI Horizontal HRSG.
 - Possess strong leadership and dynamic interface in a team environment and working with others to achieve the best possible output from all functional viewpoints.
 - Actively display initiative in the development and modification of existing design with the responsibility for meeting customer requirements and company internal requirements for mechanical scope.
 - Support the technical development of the Mechanical Engineering and Design functions through the evaluation and introduction of new design and analysis capabilities.
 - Demonstrated ability to work independently or to lead a team to complete projects within required timeframes.
 - Demonstrated abilities and passion for providing technical advice to staff members, and embracing a culture that values team work.
 - Highly knowledgeable in Piping Fabrication, Installation and Testing.
 - Control Systems Experience:
 - Xp teleperm (TXP).
 - SPPA-T3000.
 - Yokogawa Centum CS 3000.
 - Alspa 6.2.4.0.
 - Alspa p320.
 - Tosbac7/40E.
 - Mark VI.