106991-ELE-1MOS-E-2004
Start-up, Commissioning & Operation Shift Engineer

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

PERSONAL DATA

Nationality	:	Egyptian
Birth Date	:	14/10/1978
Gender	:	Male
Marital Status	:	Married
Residence	:	Alexandria

EDUCATION

: B. Sc. in Electrical Power Engineering, Menoufia University, 2004

LANGUAGES

Arabic	:	Native Language
English	:	Good

COMPUTER SKILLS

: Windows, MS Office (Word, Excel, Access, Power Point), Internet

TRAINING COURSES AND CERTIFICATIONS

: Matlab 6.5
: AutoCAD 2D
: V. Basic v.6
: C, C+
: Studying for C#.
: Training at Alex. Electrical Power Station, worked at different Departments (summer 2002).
: Course on Control (Automated Cycle control): Design, Executive, and Maintenance and Repair, from the Italian Silesian College (summer 2004).
: Training course on SIEMENS Transformer in Sidi Krir 500KV GIS S/S for operation and maintenance (Mar. 2008).
: SIEMENS Training protection course in Sid Krir (Mar. 2008).
: Training course on Pneumatic and Electro-pneumatic P.L.C. step 7-200, from the Italian Silesian College (summer 2008).
: Training Course on P.L.C Siemens step 7-300 at Abu Qir Training Centre (summer 2008).

CHRONOLOGICAL EXPERIENCE RECORD

Dates : From Jul. 2019 till now
Employer : Power Generation Engineering and Service Company (PGESCo.)
Project : South Helwan 1950MW Supercritical Power Plant:

- It is designed to include 3x650MW steam thermal power plant (supercritical).
- It is comprised of three identical turbine generator units, each with a nominal rated capacity of 650MW, each unit consists of one 650MW steam cycle thermal Mitsubishi turbine and main boiler ANSALDO CALDAIE with 30 burners' natural gas fuel and mazout fuel as back up and 10 burners solar fuel.
- The units are capable of generating rated capacity using natural gas, residual (mazout) oil, or a combination of both.
- The three units plant arrangement includes an enclosed Mitsubishi turbine building, an open AC boiler structure, a common control room, and all associated structures and facilities.

Job title : Start-up, Commissioning & Operation Shift Engineer

Dates : From Mar. 2016 till Jun. 2019
Employer : Arabian BEMCO Contracting Industrial & GS E&C JV Company
Project : PP#12 Combined Cycle Power Plant 2000MW, KSA
Job title : Start-up & Operation Engineer
Job Description :

- Pre-commissioning and commissioning for 8 gas turbines 7FA.05 - Mark Vie.
- Start-up for frame 7FA.05 the fame from GE high performance high protection.
- Commissioning and testing and finish all activities for preparations of firing.
- Operation of Alstom with Yokogawa control system.
- Operation of Alstom steam turbine 350MW.
- First fire for the frame and monitoring the performance and efficiently.
- Operating of the plant in normal operation – Assist the implementation of Log out / Tag out (LOTO) system in accordance with the company policies and procedures.
- Take regulatory action, based on readings from charts, meters and gauges at established intervals.
- Take full responsibility for health and safety environment for following all EHS requirements during work.
- Ensure that members of the operation team adhere to company rules.
- PP#10 Combined Cycle Power Plant owned by SEC (Saudi Electrical Company), Saudi Arabia 800MW for 5 months.

Dates : From May 2012 till Feb. 2016
Employer : Kharafi National
Project : Shuaiba South Power Station
Job title : Senior Electrical Engineer

Job Description : Electrical Control Room Charge Engineer for Shuaiba South Power Plant (6x120MW) steam turbine steam boiler generator (TOSHIBA):

- Make synchronization for unit, connect and disconnect the feeders.
- In addition, I have to check the electrical system of 6 units and its stability, besides making the isolation for any equipment under maintenance.
- And I should be aware of circuit breakers locations on either 6.6KV system or 415 V system (which are divided into 6 x 6.6KV bus-bar for all units supplied:
  - By the unit auxiliary transformer (15 – 6.6KV) during normal operation conditions.
  - Or by of the station service transformer (132 – 6.6KV) during the unit outage.
  - And those bus-bars supply load centers at 415 V and the load centers supply number of MCC's (motor control centers) & VCC (valve control center).

Dates : From Mar. 2010 till Mar. 2011
Employer : Ansaldo Energia
Project : Sidi Krir Combined Cycle 2 units 250MW gas turbine (Mitsubishi) & unit 250MW steam turbine (Ansaldo) & HRSG from (NEM)
Job title : Operator, Start-up & Commissioning Engineer

Dates : From Mar. 2008 till May 2012
Project : Sidi Krir Power Plant (2x320MW)
Job title : Electrical Maintenance Engineer
Job Description :

- Maintenance of power circuits, control circuit & Vacuum Circuit Breaker of 6.3KV Power Ac Switchgear (General Electric).
- Maintenance of Medium (6.3KV) Voltage Motors.
- Maintenance of power circuits, control circuit & Air Circuit Breaker of 400 V Load Centers (General Electric).
- Maintenance of power circuits and control circuit of 400 V MCC's.
- Maintenance of Low Voltage (400 V) Motors.
- Installation & Maintenance to Electrical Valves (Stop valves) (auma, Limitorque & Siemens).
- Maintenance of power circuits and control circuit of Soot blower system.
- Maintenance of power circuits and control circuit of Ventilation System (Centrifugal Fans Unit & Wall Axial Fans Unit).
- Maintenance of power circuits and control circuit of overhead cranes.
- Good experience with plc's and control circuits.

Dates : From Dec. 2004 till Mar. 2008
Project : Sidi Krir Power Plant (2x320MW)
Job title : DCS Operation Engineer
Job Description :

- As Steam Boiler (BABCOCK & WILCOX) DCS Operator:
  - Operating one of the two water tube steam boilers at constant pressure of 166 bars and a temperature of 538◦C superheated steam and maintain its stability.
  - Control of the boiler firing and its air-fuel ratio through a complete

DCS control.

- Operate the generating unit at its different modes of operation according to the Egyptian central dispatch demand due to the grid frequency.
- Change the fuel type (as the boiler is dual firing) either Mazout oil or natural gas.
- Leading the operation technicians to achieve the optimum accuracy of the boiler control devices and to make it easy for the maintenance team to fix any breakdown or mal-function.
- The steam boiler has many systems such as:
  - ❖ Combustion air system.
  - ❖ Fuel system (Mazout pumps and valves or natural gas valves).
  - ❖ Mazout heaters.
  - ❖ Flue gases system.
  - ❖ Attempting and spray system.
  - ❖ Burners.
  - ❖ Air heaters (gas air heaters and steam coil air heaters).
  - ❖ Reboiler system.
  - ❖ Seal air system.
  - ❖ Flame scanner blowers.

- As Auxiliaries DCS Operator:
  To maintain auxiliary's stability and running in safe operating conditions, those auxiliaries consist of various systems such as:
  - Boiler feed water pumps system.
  - Service pumps system.
  - Circulate water pumps system (condenser cooling).
  - Closed cooling pumps system.
  - Condensate system.
  - Low pressure and high-pressure heaters system.
  - Heat exchangers.
  - Compressed air system.
- As Turbine (SIEMENS) DCS Operator:
  The steam turbine is a multi-stage steam turbine (3 stages) which is High-pressure turbine (HP), Intermediate pressure turbine (IP) and low pressure turbine (LP). Also, the turbine itself has its auxiliaries system such as:
  - Shut off and control valves.
  - HP and IP turbines bypass.
  - Lube oil pumps system.
  - Control oil pumps system.
  - Hydrogen seal oil system.
  - Condenser vacuum system.
  - Condenser water box vacuum system.
  - Excitation system monitoring.
  - Margins monitoring.
- And as an Electrical Engineer I also have to check the electrical system of both units and its stability, besides making the isolation for any equipment under maintenance, and I should be aware of circuit breakers locations on either 6.3KV system or 400 V system which are divided into 2 x 6.3KV bus-bar for each unit supplied by the unit auxiliary transformer (21 – 6.3 – 6.3KV) during normal operation conditions, or by one of the

two start-up transformers (220 – 6.3 – 6.3KV) during the unit outage, and those bus-bars supply load centers at 400 V and the load centers supply number of MCC's (motor control centers).

- Also the plant includes 2 desalination units (multi-stage flashing system), a hydrogen plant, a strong water treatment and polishing system and fire pumps system.

Field of experience :

Worked with many control devices and instruments such as:

- PLC (Siemens S7 300 and S7 200).
- Variable speed drives (Siemens Micro Master and Midi Master, ABB ACS (100, 150, 400, …., 800).
- PID controllers (temperature controllers, level controllers, flow controllers, etc…).
- Most of switching devices (photocells, Inductive and capacitive proximity switches (magnetic pickup), limit switches, pressure switches).
- Solenoid valves (pneumatic valves, water valves and hydraulic valves).
- Sensors such as thermocouples, RTD's and vibration probes.