**103548-ELE-1OS-E-2007**
Shift Charge Engineer

Holds a B. Sc. in Electrical Power Engineering and has about 10 years hands-on experience working in operation, commissioning and start-up at Nubaria Combined Cycle Power Plant.

## PERSONAL DATA

| | | |
|---|---|---|
| Nationality | : | Egyptian |
| Birth Date | : | 01/10/1984 |
| Gender | : | Male |
| Marital Status | : | Married |
| Residence | : | El-Behira |

## EDUCATION

: B. Sc. in Electrical Power Engineering, Al-Azhar University, 2007

## LANGUAGES

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

## COMPUTER SKILLS

: Windows, MS Office, Internet

## TRAINING COURSES AND CERTIFICATIONS

: On-shore Training of Gas Turbine Siemens V94.3A each one produces 250MW, Nubaria (Oct. 2008).
: On-shore Training of High and Medium Voltage (500KV/220KV/6.3KV), Nubaria (Nov. 2008).
: On-shore Training of Steam Turbine Operation and Maintenance by Mitsubishi Heavy Industries Company, Nubaria (Dec. 2009).
: On-shore Training of ALSTOM HRSG, Nubaria.

## CHRONOLOGICAL EXPERIENCE RECORD

**Dates** : From Jul. 2014 till now
**Employer** : Middle Delta Electricity Production Company (MDEPC)
**Project** : Nubaria Combined Cycle Power Plant (3x750MW):

- Two modules, each module consists of:
  - Two Siemens CTG 250MW type V94.3A
  - Two horizontal Alstom HRSG
  - One Mitsubishi STG 250MW (HP, IP, LP)

- 220KV Switchyard
- 500KV Switchyard
- Four tie transformers 500/220/11KV

**Job title** : Shift Charge Engineer

**Job Description** :

- Start-up and Shutdown of the Power Plant Units with SCADA System.
- Commissioning and start-up of Gas Turbine after Overhauling.
- Connect and disconnect of Power Plant Transformers, Medium, Low Voltage Switchgears.
- Calculate the Performance of the Operating Units such as Steam and Gas Turbines.
- Perform as Witness of 4 Hot Gas Path Inspections, Minor Inspection, Major Inspection of V94.3A Siemens Gas Turbine.
- Perform and commissioning of Power Plant Transformers around 310MVA.
- Perform of Power Plant Protection of Equipment such as Gas Turbine, Steam Turbine, Generators, Transformers, Transmission Line.

**Dates** : From Mar. 2010 till Jul. 2014

**Employer** : Middle Delta Electricity Production Company (MDEPC)

**Project** : Nubaria Combined Cycle Power Plant (3x750MW)

**Job title** : Combined Cycle Operator

**Job Description** :

- Operating Engineer in Gas Turbine Generator:
  - Commissioning of gas turbine after overhauling including valves, pumps, gas turbine start-up, increasing the load.
  - Check and tighten the connection of fuel lines including leakage test before start.
  - Check and observe the protection of auxiliaries such as vibration, temperature, pressures, hot and cold spots of blades.
  - Observe the power transformer during the shift.
  - Connect and disconnect the power plant transformers switchgears.
  - Commissioning of inlet cooling of compressor (wet compression).
  - In SIEMENS gas turbine we make the overhauling of the machine due to operating hours:
    - Minor inspection at 8000hr.
    - Minor inspection at 16000hr.
    - Hot gas path inspection at 25000hr.
    - Minor inspection at 33000hr.
    - Minor inspection at 41000hr.
    - Major inspection at 50000hr.
- Operating Engineer in Steam Turbine Generator:
  - General Description of Steam Turbines.
  - Surface Condenser.
  - Gland Steam Condenser & Fan.
  - Lube Oil Cooler.
  - Condenser Vacuum Pump.
  - Lube Cleaning System.
  - Debris Filter.
  - Condenser Water Vacuum Pump.
  - Turbine Governing System.
  - Operation of Steam Turbine.
  - DEH Control.

- ATS Control.
- Turbine Inter Lock.
- Turbine Control System.
- Auxiliary Equipment Control.
- Operation for Generator & Generator Auxiliary Systems.
- Generator Protection & Control Systems.
- Generator Auxiliary Systems.
- Generator Excitation Systems.

**Dates** : From Nov. 2008 till Mar. 2010

**Employer** : Middle Delta Electricity Production Company (MDEPC)

**Project** : Nubaria Combined Cycle Power Plant (3x750MW)

**Job title** : Main Operation Engineer in Control Room & Switchyard 500/220KV

**Job Description** :

- Conventional Air Insulated Switchyard (AIS).
- Sumitomo Corporation CONISYS (Tokyo & Cairo) 500KV.
- ABB Corporation (Cairo) 220KV.
- Local Area and Equipments:
  - 500KV Switchyard:
    - 9 Power Transformers (ZTR & Hyundai).
    - 4 TFRs ZTR of CTG Turbines 16.5KV/500KV & 2 TFRs ZTR of STG Turbine 15KV/500KV.
    - 2 TFRs Hyundai of CTG Turbines 15.75KV/500KV & 2 TFR Hyundai of STG Turbine 19KV/500KV.
    - 2 Bus bars 500KV, 3000 A (Double Bus bars Double Breaker).
    - 15 Bays consists of 6 CTGs C.Bs & 3 STGs C.Bs.
    - 4 ZTR Tie Transformers (each 3 Single Phase Auto TFR) 500/220/11KV.
    - 2 OHTL 500KV.
    - 12 Bays of "Sumitomo Japan" Dead Tank C.Bs.
    - 3 Bays of "Areva" Live Tank C.Bs.
    - CONISYS Live Line Insulator Washing (LLIW) System.
    - Capacitive & Inductive V.Ts.
    - Wave Traps.
  - 220KV Switchyard:
    - 2 Bus bars 220KV, 3000 A (Double Bus bar Single Breaker).
    - 220KV Bus Coupler.
    - 4 OHTL 220KV (Double Circuit).
    - 12 Bays of "ABB" Live Tank C.Bs.
    - CONISYS Live Line Insulator Washing (LLIW) System.
    - Capacitive & Inductive V.Ts.
    - ABB C.Ts.
    - Wave Traps.
  - Control Room:
    To control the system using:
    - AREVA Protection, Automation and Control Integrated System (PACIS).
    - MICOM Bay Control Unit by AREVA (BCU) Ver.C264 for Control.
    - MICOM by ALSTOM for Protection as follows:
      - P742, P741 for Bus bar protection.
      - P437, P442 for Distance Protection.
      - P143 for Breaker failure.

- P126 for Backup Protection.
- P632 for Differential Protection.

- ABB Protection Relays as follows:
  - REB 500 for Bus bar Protection.
  - Reel 316, Reel 531 for Distance Protection.
  - Auto Reclosed System.
- CONISYS Live Line Scada Control Unit.
- CONISYS & ABB Chargers, Rectifiers, Batteries and Inverters 400v Ac>> 220,48v Dc Room (UPS System).