100896-MEC-CMOS-E-2001
Senior Mechanical Engineer

Holds B. Sc. and M. Sc. in Mechanical Power Engineering and is working on PhD degree. Has about 10 years experience in operation, construction, commissioning and maintenance of several Power Plants.

PERSONAL DATA

Nationality	:	Egyptian
Birth Date	:	12/12/1978
Marital Status	:	Married

EDUCATION

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

: M. Sc. in Mechanical Power Engineering, 2007

: Registered for Doctorial Degree since Jan. 2008 from Automatic Control section – Mechanical Power Dept. – Alexandria University

LANGUAGES

Arabic	:	Native Language
English	:	Very Good

COMPUTER SKILLS

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

: MS Project

: AutoCAD

TRAINING COURSES AND CERTIFICATIONS

: Operating and maintenance of gas turbine frame M701F – 750MW at Takasago City – MHI – Japan – 2008.

: Electric generator 290 MVA at Kobe City – MHI – Japan – 2008.

: Operating and maintenance of gas turbine frame M701F – 750MW Mitsubishi on-site.

: Electric generator 290 MVA MILCO on-site.

: Combined Cycle 750MW (2x250MW Mitsubishi frame M701F, Alstom steam turbine & 2 HRSG NEM) in North Cairo, Dec. 2008 till Jan. 2009.

: Toshiba training (on-site):

- Services Gas system (H2, N2 & CO2), Mar. 2010.
- HVAC system & ventilation fans, Mar. 2010.
- Horizontal pumps (centrifugal pump double suction) & vertical sump pumps (Flow Tech Company), Mar. 2010.

- Cranes training (Konecrane Company), Apr. 2010.

: Ebara pump training (circulating pump, raw water pump, service water pump, HP/IP Feed water pump, demi water pump), Toshiba training.

CHRONOLOGICAL EXPERIENCE RECORD

Dates : From Dec. 2011 till now
Employer : EGYPTROL – Seconded to Ansalado Energia
Project : 6th October Power Plant
(Consists of 4 units gas turbine 150MW Ansaldo.)
Job title : Commissioning & Start-up Engineer (Team Leader)

Dates : From Jul. 2011 till Dec. 2011
Employer : Kharafi National Company, Kuwait
Project : El-Sabiya Co-generation (Power & Distillation) Plant:
Consists of:
- 8 units 300MW Steam turbine MHI.
- 8 Steam boiler MHI.
- 6 units gas turbine GE 40MW frame 4.
- 4 units gas turbine GE 70MW frame 7.
- New project: 6 gas turbine GE frame 9FA, 6 HRSGs, 2 steam turbines and MSF distillation plant.

Job title : Senior Mechanical Engineer

Dates : From Jul. 2010 till Jul. 2011
Employer : Kharafi National Company, Kuwait
Project : El-Shuaiba North Co-generation (Power & Distillation) Plant:
Consists of the following configuration:
- 3 GE 9001FA, gas turbine generators, with dual fuel firing capability & evaporative cooler.
- 3 natural circulation type HRSGs with out duct burner. Integral type deaerator installed on each HRSG.
- 3 bypass stacks with diverter dampers.
- 1 back pressure steam turbine.
- 2 x 50% HP/LP bypass systems to supply LP process to desalination plant.
- 1 x 100% HP/IP bypass system to supply IP process steam to desalination plant.
- 1 turbine bypass system to dump the HP steam to dump condenser.
- 1 start-up bypass system to support the start-up of subsequent HRSG unit to running the combined cycle operation.
- 1 dump condenser.
- 3 MSF type distillation units of each 15 MIGPD capacity.
- 3 x 50% condensate extraction pumps for dump condenser.
- 2 x 100% feed water pump for each HRSG.
- 4 gas compressors Atlas Copco.

Job title : Senior Mechanical Engineer
Job Description :
- Sharing in routine maintenance for 3 GE 9001FA gas turbines and combustor inspection.

- Sharing in commissioning for 3 GE 9001FA gas turbines.
- Sharing in commissioning for 3 natural circulation type HRSGs, ovation control system.
- Sharing tests for all measuring instruments and make loop & function test for all equipments.
- Fuel gas valves, liquid fuel valves, IGV, purge valves maintenance and calibration.
- Conversant with Mark IV toolbox.

Dates : From 2008 till 2010

Employer : Middle Delta Electricity Production Company (MDEPC)

Project : El-Atf Combined Cycle Power Station (750MW):

Consists of:

- 2x250MW gas turbine M701F Mitsubishi with diamond system control.
- 1x250MW (HP, IP, LP) steam turbine Ansaldo.
- 2 Heat Recovery Steam Generation HRSG NEM.
- 6.3KV switchgear Schneider.
- 21/220KV step up transformer (3 Trans.) Areva.
- 220KV switchyard GIS (gas isolation system) Siemens.
- 3 gas compressors Atlas Copco.
- Co2 fire fighting system.
- H2 & N2 gas generation station.
- DCS control Yokogawa.
- Service & instrument air compressors compare.
- Pulse air compressors Atlas Copco.
- Water treatment station Metito.

Job title : Mechanical Engineer

Job Description :

- Follow up the following contracts:
  - Contract no. CP-101 (Combustion turbine generator 2x250MW - Mitsubishi gas turbine M701F and its auxiliaries):
    - Erection starting motor package and follow up and check the alignment of coupling between starting motor and torque converter, torque converter & gear box & excitation system, alignment of slip ring bearing, alignment of generator bearings, alignment of turbine bearings.
    - Erection of turbine package and all pipe line of fuel gas, fuel oil, water injection, cooling air, ventilation fan.
    - Erection of air intake (pre filter, main filter, silencer, pulse air compressor, dryer).
    - Erection of exhaust duct.
    - Erection of lube oil system (main, auxiliary, emergency & torque converter oil pump, vapor extractor).
    - Erection of control oil system.
    - Erection of sealing oil system & hydrogen for generator.
    - Erection of CO2 fire fighting system.
    - Erection of purge air compressor (Atlas Copco).
    - Erection of N2 & H2 generator system.
    - Erection of fuel gas compressor (3 compressors Atlas Copco).
    - Erection of compressor blade washing system.
    - Erection of GT by pass damper system (barker).

        - Wok down and hydrostatic tests for all previous system.
        - Make tests for all measuring instruments and make loop & function test for all equipments.
        - Receiving spare part for gas turbines and their auxiliary's equipment like fuel gas skid, fuel oil skid, lube oil unit, hydrogen unit, etc.
    - Contract no. CP-109 & CP-118 (contains all auxiliaries for the power station such as):
        - Erection of closed cooling system (2 pumps, 2 plate type heat exchanger, 2 strainer).
        - Erection of circulating water system (3 pumps).
        - Erection of raw water system.
        - Erection of service water system.
        - Erection of traveling screen and trash rack system.
        - Erection of hydrogen generation system.
        - Erection of potable water system.
        - Erection of sump pump system.
        - Erection of compressed air system (2 instrument air compressors, 2 service air compressors & 2 air dryers) CompAir compressors.
        - Follow-up and check Alignment work for cooling water pumps, service water pump, raw water pump, circulating water pump, LP feed water pump & HP/IP feed water pump.
        - Pre walk-down & final walk down for all piping and auxiliaries system.
        - Hydrostatic tests for all piping & previous system.
        - Packing list of (materials/equipments).
        - Receiving (materials/equipments).
        - Inspection (equipment and material check) and making MIR.
        - Storing and making MRR.
        - Make tests for all measuring instruments and make loop & function test for all equipments.
- Commissioning & Start-up Engineer with MITSUBISHI Company:
    - Follow-up pre-commissioning (lube oil flushing, control oil flushing, seal oil flushing, air blow, etc.).
    - Follow-up commissioning & start-up for GT auxiliary.
    - Follow up the project daily works (piping, welding and all auxiliary equipment).
    - Follow up commissioning & start-up for fire fighting system with Minimax Company for gas turbine portion & gas compressor portion.
    - Line up for (lube oil, control oil, air and fuel gas, instrument air, etc.) before initial fire.
    - Senior Shift Engineer for 2GT, auxiliaries & GIS during Reliability run.
- Maintenance Engineer:
    - Routine maintenance for each C.G.T. unit and the steam turbine.
    - Doing all kind of maintenance for each G.T. unit which includes:
        - Combustion inspection including:
            - Fuel gas valves calibrations.
            - Combustion tuning.
        - Hot gas path inspection.
        - Major overhaul inspection.

- Combustor inspection:
  - From 20/2/2010 to 8/3/2010 for CTG#1.
  - From 4/3/2010 to 18/3/2010 for CTG#2.
    - Combustor basket inspection visual & penetration test (VT & PT).
    - Fuel nozzle inspection (VT & PT) and spray test.
    - Transition piece inspection (VT & PT) and alignment with combustor basket.
    - Cross flame tube inspection (VT & PT).
    - Bypass elbow inspection (VT & PT).
    - Combustor basket top hat inspection (VT & PT).
    - IGV, OGV & compressor blades row 1 inspection (VT).
    - Check and measure the tip clearance of the row 1 compressor blades at 10 points.
    - Turbine blades row 1, row 4 and ring segment inspection (VT).
    - Check and measure the tip clearance of the row 4 turbine blades at 10 points.
    - Fuel gas valves calibration.
    - Combustion tuning.

Dates : From 2002 till 2008

Project : Mahmoudia Power Station:

Consists of:

- 8x25MW general electric gas turbine frame 5 (Mark II).
- 2 Heat Recovery Steam Generators (NEM).
- 2x56MW general electric steam turbine (Mark V).
- Water treatment PLC control.
- Tube cleaning & Debris filter system PLC control.
- 4x50MW Rolls Royce gas turbine units double end – SK 60.
- 220/66/11KV Transformers Substations.
- 11/220KV Set-up Transformers.
- 220KV Switchyard (Sf6 circuit breakers – Isolators – wave Trap – Surge arrestor, etc.
- Feeder 220KV (6 sets) & feeder (66KV).
- 11/6KV Transformers.
- 6.6KV Switchgear (Sf6 circuit breakers).

Job title : Shift Engineer

Job Description : Conversant with:

- Unit start-up and shutdown procedures.
- Monitoring parameters.
- Testing the equipments.
- Isolation & de-isolation procedures.
- Safety work permit system.
- Follow up all day work and maintenance for any equipment.
- Follow up (combustion inspection, hot gas path inspection, major overhaul maintenance) for gas units and steam units.
- Follow up the overhaul maintenance for the condenser and vertical condensate pumps.
- Follow up the maintenance for circulating pumps, cooling water pumps and traveling screen.