

100771-MEC-MOS-E-2004
Gas Turbine Maintenance Engineer

Holds a B. Sc. and M. Sc. in Mechanical Power Engineering. Has about 11 years hands-on experience in power plant projects including installation for gas turbine, steam turbine, boilers and related auxiliaries. All aspects of commissioning, start-up and operation for all mechanical equipments (static and dynamic). Understanding of P&ID drawings and pipe line installation commissioning, under & above ground piping, pumps and valves.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 01/03/1980
Gender : Male
Marital Status : Married
Residence : Currently KSA

EDUCATION

: B. Sc. in Mechanical Power Engineering, Tanta University, 2004
: M. Sc. in Mechanical Power Engineering, Alexandria University, 2011

LANGUAGES

Arabic : Native Language
English : Very Good

COMPUTER SKILLS

: Windows, MS Office, Internet
: AutoCAD (2D & 3D)

TRAINING COURSES AND CERTIFICATIONS

: Operating and maintenance of steam turbine 750MW at Genua City – ANSALDO ENERGIA – ITALY.
: Electric Generator 290 MVA at Genua City – ANSALDO ENERGIA – ITALY.
: Installation of the condenser in Milano City – STF – ITALY.
: Combined Cycle 750MW at North Cairo.
: Operation and maintenance for MHI gas turbines at El-Atf Power Station.
: Operation and maintenance for GE gas turbines frame 5 (MS 5001).
: NEM HRSG operation and maintenance at El-Atf Power Station:

- HRSG controls and instrumentation.
- HRSG water chemistry and safety.

- : D.C.S. CENTUM CS 3000 R3 Fundamentals for operation, Yokogawa, El-Atf Power Station.
- : Maintenance and operation of horizontal pumps & sump pump (Toshiba and EBARA), El-Atf Power Station.

CHRONOLOGICAL EXPERIENCE RECORD

Dates : From Aug. 2013 till now
Employer : Saudi Electricity Company
Job title : Gas Turbine Maintenance Instructor (GT MS7001 - 60HZ), Dammam Training Center, KSA

Dates : From Dec. 2008 till Aug. 2013
Employer : Middle Delta Electricity Production Co.
Project : EL-ATF Combined Cycle Power Station:

- Mitsubishi Gas Turbine (Frame M701F), two units – 250MW each one (Diasys)
- 11/220KV Set Up Transformers

Job title : Gas Turbine Maintenance Engineer
Job Description :

- As Owner Representative Mechanical Engineer responsible for commissioning & start-up of gas turbine Mitsubishi (M701F), 2x250MW and its related auxiliaries such as:
 - Lube oil unit.
 - Hydraulic oil unit.
 - Purge air compressor.
 - GT by pass damper.
 - Fuel gas compressor.
 - Vibration monitoring system.
 - Turbine cooling air cooler (TCA).
 - Hydrogen filling system for cooling generator.
 - Hydrogen releasing system by using air after using CO2.
 - CO2 fire fighting system.
- As Owner Representative Mechanical Engineer responsible for commissioning & start-up of steam turbine ANSALDO (250MW) and its related auxiliaries such as:
 - Lube oil system.
 - Hydraulic oil system.
 - Jacking oil system.
 - Hydrogen filling system for cooling generator.
 - Vacuum system.
 - STF condenser.
 - Seal oil system.
- Commissioning and testing of:
 - Condensate system & condensate pumps.
 - Feed water system (LP, HP/IP) FWP.
 - Circulating water system & CW pumps.
 - Sump pumps.
 - Service water system.
 - Closed cooling system.
 - Instrument and service air system.

- Potable water system.
- Cooling water intake equipment (sluice gate, traveling screen).
- Maintenance for steam turbine GE (58MW) Mark V:
 - Major inspection for turbine.
 - Pumps maintenance and balancing.
 - Overall maintenance for condensate pumps (10 stages), vertical pumps.
 - Maintenance for travel screen and main cooling pumps, hydraulic power unite, air compressors and steam turbine auxiliaries such as ejectors, lubrication system and condenser.
- Overall maintenance for MHI 701F GAS turbine 2x250MW and its auxiliary's.
- Overall maintenance for reciprocating & screw compressor.
- Overall maintenance for multistage centrifugal, screw & gear pumps.
- Shaft Alignment for turbo machinery and rotating equipment with Laser Alignment Technology (Easy Laser D550).
- Inspection for both the GE and MHI units:
 - GAS turbine combustor inspection (Hot Path).
 - GAS turbine inspection.
 - GAS turbine major inspection.

Dates : From Oct. 2005 till Dec. 2008

- Project** : El-Mahmoudia Power Station:
- General Electric Gas Turbine (Frame 5), 8 sets – 25MW each one (Mark II)
 - Rolls Royce Gas Turbine (Double End – SK 60), 4 sets – 50MW each one
 - 220/66/11KV Transformers substations
 - 11/220KV Set Up Transformers
 - 220KV Switchyard (Sf6 circuit breakers – Isolators – wave Trap – Surge arrestor, etc.
 - General Electric Steam Turbine (Mark V) 2 sets
 - Steam turbines auxiliaries (DCS) Control
 - Water treatment (PLC) control
 - Tube cleaning & Debris filter system (PLC)
 - Feeder 220KV (6 sets) & feeder (66KV)
 - 11/6KV Transformers
 - 6.6KV Switchgear (Sf6 circuit breakers)

Job title : Shift Charge Engineer

- Job Description** :
- Conversant with:
 - Unit start-up and shutdown procedures.
 - Monitoring parameters.
 - Testing the equipments.
 - Isolation and de-isolation procedures.
 - Safety work permit system.
 - Work at 220/66KV switchyard & 6KV, 380V substation.
 - I worked in the following maintenance sections for General Electric units frame 5 (25MW):
 - Overall major maintenance including:
 - Take out and maintenance the turbine rotor.
 - Replacement the turbine blades.

- Take out the generator rotor.
- Combustion inspection including:
 - Fuel nozzles, fuel line and fuel valves inspection.
 - Combustion chambers and cross fire tubes inspection.
- Hot gas path inspection including:
 - Combustion inspection steps.
 - Remove the turbine casing.
 - Remove and inspect transition pieces.
 - Remove and inspect the first stage nozzle.
- Major inspection including:
 - Combustion inspection steps.
 - Hot gas path inspection steps.
 - Remove accessory coupling and load coupling.
 - Inspect and check alignment.
 - Take initial rotor position check.
 - Establish solid foundation and install mech.
 - Support jacks under compressor and turbine casings.
 - Remove compressor upper half's casings.
 - Remove turbine upper half casing.
 - Remove exhaust hood.
 - Remove upper half inlet casing.
 - Take turbine and compressor clearance checks.
 - Remove and inspect 1st and 2nd stage nozzles.
 - Remove and inspect No. 1, No. 2 and thrust bearing (load & unload).
 - Inspect 1st and 2nd stage buckets.
 - Inspect 1st and 2nd stage shrouded tip buckets.
 - Check and adjust rotor floating.
- I also worked in the following maintenance sections for steam turbine GE (58MW), Mark V:
 - Make major inspection including:
 - Measure and record rotor radial position.
 - Measure and record rotor axial position.
 - Check couplings run-out.
 - Record alignment details.
 - Measure journals diameters.
 - Perform diaphragms alignment checks and all required adjustments.
 - Pumps maintenance and balancing.
 - Overall maintenance for condensate pumps malted stages (10 stages), vertical pumps.
 - Maintenance for travel screen and main cooling pumps, hydraulic power unite, air compressors and steam turbine auxiliaries such as ejectors, lubrication system and condenser.
- Overall maintenance for Gas Turbine 8x25MW (GE frame 5) and its auxiliary's.

Field of experience :

- Excellent mechanical skills and working to strict deadlines within technically demanding environments.
- Major projects of power plant have includes installation for gas turbine, steam turbine, boilers and related auxiliaries.
- All aspects of commissioning, start-up and operation for all mechanical

equipments (static and dynamic) to be according client contract specification and manufacture requirement.

- Understanding of P&ID drawing and pipe line installation commissioning, under & above ground piping, pumps and valves.
- GAS turbine combustor inspection.
- GAS turbine turbine inspection.
- GAS turbine major inspection.
- Technical ability in the field and in the office.
- Adaptable, with ability to have valuable input to many aspects of a project.