101221-ELE-CMS-E-2005
Electrical Engineer

Holds a B. Sc. in Electrical Power & Machines Engineering and has about 16 years experience working in construction and maintenance.

PERSONAL DATA

Nationality	:	Egyptian
Birth Date	:	10/01/1977
Gender	:	Male
Marital Status	:	Married
Residence	:	Behira

EDUCATION

: B. Sc. in Electrical Power & Machines Engineering, Al-Azhar University, 2005

LANGUAGES

Arabic	:	Native Language
English	:	Very Good

COMPUTER SKILLS

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

TRAINING COURSES AND CERTIFICATIONS

: Basic operation / maintenance (training) Siemens gas turbine v94.3A (Mar. 2008): Introduction to the plant - Electrical and I&C part, Gas turbine part (Nubaria).

: Operation and maintenance of HRSG, Nubaria (Mar./Apr. 2008).

: Operation and maintenance (training) of switch yard 500KV &220KV, Nubaria (Apr. 2008).

: Amplissima user training, Talkha Gas Turbine Power Plant (Mar. 2010):

- Plant module function.
- Report generator function.
- Document module function.
- Work order module function.
- Store module function.
- Preventive maintenance module function.
- Purchasing module function.
- System administrator function.

CHRONOLOGICAL EXPERIENCE RECORD

Project : Nubaria Power Station:

- Consists of 2 Modules (2x750MW) Combined Cycle, each module consists of:
  - Two Gas Turbines (2x250MW) Model V94.3A Heavy Duty (from Siemens Company Germany).
  - Two Heat Recovery Steam Generators (HRSG) (from Alstom Company France).
  - One Steam Turbine 250MW (from Mitsubishi Co. Japan).
- The switchyard:
  - 6 Main transformer 500/16.5KV.
  - 4 Tie transformer 500/220KV.
  - 8 Feeders 220KV.

Job title : Electrical Engineer

Job Description :

- Medium voltage:

  Corrective & preventive maintenance for the following:
  - Medium voltage 6.3KV switchgear with 4 incoming 6.3/0.4KV dry transformers.
  - Motors control center (MCC).
  - Local distribution panels.
  - Low voltage induction motor, Medium voltage induction motors.
  - Emergency diesel generators.
  - Elevators.
  - Air compressors.
  - Power transformers.
  - Measuring VT & CT.
  - Dc system (chargers & batteries).
  - UPS system.
  - Distribution DC system.
  - Lighting & earthing system.
  - Plant grounding.
  - Electric loop wiring test.
  - Insulation resistance test for all types of cables, motors & bus ducts with high DC voltage.
  - Testing for motors (rotation direction, earthling, winding, insulation resistance...etc.).
- Generator Gas Turbine & steam Turbine:
  - Generator auxiliary system.
  - Generator design & structure and visual check in inside generator.
  - Maintenance for generator and trouble shooting.
  - Maintenance for generator auxiliary system.
  - Operation for generator and generator auxiliary system.
  - Minor inspection for gas turbine (Stator & Rotor):

    Stator:
    - ❖ Measure insulation resistances of stator winding.
    - ❖ Check stator winding condition (visual) (TE&EE).
    - ❖ Check of flexible strips.

    Rotor:
    - ❖ Check for true running.
    - ❖ Check rotor end winding area.
    - ❖ Measure insulation resistances of rotor winding.

- ❖ Voltage drop test on slip ring supply lead.
- ❖ Check rotor wedges and retaining rings (visual).

Cooler:

- ❖ Check cooling water inlet and outlet pipes.
- ❖ Check vent pipes.
- ❖ Check drain pipes.
- ❖ Check mounting of all coolers.
- ❖ Check condition and performance of temperature measuring device.

- Major inspection for gas turbine (Stator & Rotor):

Stator:

- ❖ Measure insulation resistances of stator winding.
- ❖ Check stator winding condition (visual) (TE&EE).
- ❖ Check of flexible strips.
- ❖ D.c over potential test.
- ❖ A.c high voltage test.
- ❖ Partial discharge test.
- ❖ Dissipation factor tan δ test.

Rotor:

- ❖ Check for true running.
- ❖ Check rotor end winding area.
- ❖ Measure insulation resistances of rotor winding.
- ❖ Voltage drop test on slip ring supply lead.
- ❖ Check rotor wedges and retaining rings (visual).
- ❖ Winding resistance test.
- ❖ Winding impedance test.

- Cooler:
  - ❖ Check cooling water inlet and outlet pipes.
  - ❖ Check vent pipes.
  - ❖ Check drain pipes.
  - ❖ Check mounting of all coolers.
  - ❖ Check condition and performance of temperature measuring device.

- Excitation system (Steam turbine):
  - Automatic voltage regulator (AVR).
  - Excitation rectifier.
  - Excitation transformer of steam turbine generator 15KV/600 v.
  - Excitation field circuit breaker.
  - Auto & Manual excitation control.
  - Excitation commissioning and start-up.
  - Excitation system maintenance and trouble shooting.
  - Thyristor control excitation.
- Static frequency converter (SFC) (D2&D4):
  - Machine control converter (MCC).
  - Line control converter (LCC).
  - Visual check of condition.
  - Check operator functions from central control room.
  - Analysis of alarms and alarm report.
  - Check of all screw terminals.
  - Check electronics cabinet installed with voltage regulator equipment.
  - Check power supply including incoming diode dust filter flow

indicator.
  - Fixing the clamp of circuit breaker.
  - Starting transformer of gas turbine generator 6.3KV/1.8KV.
- Static excitation equipments (SEE) (D2&D4):
  - Visual check of condition.
  - Analysis of alarms and alarm report.
  - Check operator functions from central control room.
  - Check electronics cabinet installed with voltage regulator equipment.
  - Check power supply including incoming diode dust filter flow indicator.
  - Fixing the clamp of circuit breaker.
  - Automatic voltage regulator (AVR).
  - Excitation field circuit breaker.
  - Auto & Manual excitation control.
  - Excitation commissioning and start-up.
  - Excitation system maintenance and trouble shooting.
  - Thyristor control excitation.
  - Excitation rectifier.
  - Excitation transformer of gas turbine generator 6.3KV/720 v.

Project : Nubaria Power Station

Job title : Electrical Project Constructions Engineer

Job Description : Approving designs & submittals, site acceptance tests, commissioning and start-up for: Combustion Turbine Generator (GE).