102276-ELE-1DETyz-E-2003
Electrical Design Engineer

Holds a B. Sc. in Electrical Power & Machines Engineering and has over 13 years hands-on experience, including 10 years working as Design Engineer.

PERSONAL DATA

Nationality	:	Egyptian
Birth Date	:	01/01/1982
Gender	:	Male
Marital Status	:	Married
Residence	:	Currently KSA

EDUCATION

: B. Sc. in Electrical Power & Machines Engineering, Alexandria University, 2003

LANGUAGES

Arabic	:	Native Language
English	:	Very Good

COMPUTER SKILLS

: Windows, MS Office, Internet
: Electrical programs
: Maintenance tools

TRAINING COURSES AND CERTIFICATIONS

: Training on Steam Turbine Generators units 250MW (Mitsubishi Electric Corporation – Energy Systems Center – Nubaria Power Station I & II, Egypt) (Jul. 2006):
- Generator Design & structure.
- Generator Auxiliary system.
- Maintenance for Generator.
- Maintenance for Generator auxiliary system.
- Operation for generator.
- Operation for Generator auxiliary system.

: Training on DC & UPS systems (INITEC Energia / ENERTRON - Nubaria Power Station I & II, Egypt) (Jun. 2006).

: Training on Hydrogen & Oxygen Gas Plant (INITEC Energia / STUART Energy - Nubaria Power Station I & II, Egypt) (Apr. 2006).

: Training in SIEMENS Germany on generator protection, start-up frequency converter (SFC), static excitation and generator maintenance for Gas Turbine Generator units 250MW (Nov./Dec. 2005).

: Trainings (Aug./Sep. 2005):

- Training in ABB Switzerland, Zurich, on generator circuit breakers HECS type. Commissioning, maintenance & troubleshooting.
- Training in ZTR Ukraine on main unit power transformers 16.5/500KV, 300 & 340 MVA, unit auxiliary transformer 16.5/6.3/6.3KV, 32 MVA and isolated phase bus ducts. Installations, testing, commissioning & troubleshooting.

CHRONOLOGICAL EXPERIENCE RECORD

Dates : From Sep. 2007 till now

Employer : ALTOUKHI Company for Industry, Trading & Contracting – Riyadh, KSA

Projects :

- FARAS Open Cycle Power Plant Extension – Al-Houfof – Eastern Area (Scope of work: The installation of four (4) Gas Turbine Units (GE frame 7 FA) with all related auxiliary) systems and the design, engineering, manufacturing, supply, construction, erection, testing & commissioning of supporting system and balance of plant equipments for relevant power plant units.)
- CONVERSION OF HAIL-2 SIMPLE CYCLE TO COMBINED CYCLE POWER PLANT – Hail – Central Area (Scope of Work: Conversion of 4 Nos existing Gas turbine simple cycle to combined cycle by adding 4 Nos HRSG, 1 Nos steam turbine rating 150MW (SIEMENS MAKE), 1 Nos ACC and 380KV substation Works plus all required auxiliaries.).
- Most of SEC simple cycle power plants, 380 & 132KV substations tenders which Altoukhi Company participated between 2010 till date.
- YANBU III Power & Desalination plant (Packages P & T) Tender – 3000MW – 5 x 620 steam turbine units (Scope of work: Studying bid documents, preparing electrical RFQs, studying vendors technical offers & preparing the tender technical file.)
- SHUQAIQ Steam Power plant tender – 2400MW – 4 x 700 steam turbine units (Scope of work: Studying bid documents, preparing electrical RFQs, studying vendors technical offers & preparing the tender technical file.)
- DUBA Integrated Solar Combined Cycle Power Plant – 660MW Combined Cycle + 50MW from solar system (SFI) (Scope of Work: studying bid documents, preparing electrical RFQs, studying vendors technical offers & preparing the tender technical file.).
- TAIBAH Integrated Solar Combined Cycle Power Plant – 3600MW Combined Cycle + 180MW from solar system (SFI) (Scope of Work: studying bid documents, preparing electrical RFQs, studying vendors technical offers & preparing the tender technical file.).

Job title : Electrical Design Engineer

Job Description :

- Design of power plant main single line diagram and Relay & Metering Diagram.
- Design of auxiliary transformers protection panels.
- Design of balance of plant electrical distribution system (medium voltage switchgears, low voltage switchgears, MCC, DC & UPS systems, auxiliary transformers and lighting & small power systems).

- Preparing of balance of plant electrical materials inquires as per project design & client technical specifications.
- Preparing of purchase orders for balance of plant materials after reviewing suppliers technical & commercial offers.
- Reviewing of project base design & detail design submittals issued by project design consultant.
- Replying to client comments regarding base design & detail design submittals.
- Preparing of plant power cables schedules.
- Preparing of AS – BUILT drawings.
- Working in power plants & substations projects tendering & Bidding stage, preparing electrical RFQs, reviewing technical offers & preparing tender technical file.

Dates : From Jan. 2004 till Sep. 2007

Employer : Egyptian Electricity Holding Company (EEHC) / West Delta Electricity Production Company (WDEPC)

Project : Nubaria Power Station I & II (2x750MW – Combined Cycle):

- 4x250MW SIEMENS Gas Turbine Generator Units
- ABB Generator Circuit Breakers – HECS type
- 2x250MW MITSUBISHI Steam Turbine Generator Units
- ALSTOM Heat Recovery Steam Generator (HRSG)
- 500KV HITACHI Air Insulated Switchyard with associated protection relays system
- 220KV ABB Air Insulated Switchyard with associated protection relays system
- ZTR Main & Auxiliary Transformers with GE protection relays
- ZTR Tie Transformers with AREVA protection relays
- Schneider Electric medium & low voltage switchgear, load center & MCC
- This plant provides electric power to the Egyptian Grid via 2 feeders of 500KV, 4 Tie Transformers 500/220KV & 8 feeders of 220KV.

Job title : Electrical Engineer

Job Description :

- During Contracting Period:
  - Reviewing and modify if required the prequalification and the technical specification for the tender documents related to all contract packages & purchase orders of the project.
  - Technical and financial evaluation for all proposals.
  - Follow up all contract packages and purchase orders negotiations until the contract date.
- During Construction Period:
  - Preparation of MRR (Material Receiving Report) after site inspection for all electrical equipments (cables, cable trays, motors, transformers, generators and accessories, protection panels, distribution panels, and all auxiliary systems related to the project).
  - Preparation of Change Notices according to the project conditions and study of contractor change request.
  - Factory inspection and testing for electrical equipments such as medium and low voltage cables, distribution transformers, medium and low voltage switchgear, motor control centers, protection

panels, Isolated phase bus duct (IPB), AC and DC distribution panels.

- Preparation of punch list items for site work and follow up the contractor action.
- Follow up Construction activities for all electrical equipments installed in the site such as temporary construction power, grounding grid, Medium & low voltage cables, 500KV Air Insulated Switchyard, 6.3KV Medium Voltage Switchgear, low voltage load centers, motor control centers, batteries, battery chargers, DC & UPS system, large power transformers (main & auxiliary), Gas Turbine Generator and its accessories, Steam turbine generator and its accessories, distribution transformers, lighting system and surge arrestors.

- During Commissioning and Start-up Period:
  - Witnessing the testing and commissioning of the 500KV air insulated switchyard circuit breakers, CTs, VTs, and disconnect switches (Megger, DC resistance, contact resistance, timing, insulation power factor tanδ, interlocking and control circuit).
  - Witnessing the testing of the main & auxiliary power transformers (Megger, DC resistance, turns ratio & tanδ).
  - Witnessing the testing and commissioning for 6.3KV switchgear, 6.3/0.4KV dry type transformers, 400 V load centers, MCC, and emergency diesel generator.
  - Witnessing the testing and commissioning for the gas turbine generator such as Megger, High potential, winding resistance.
  - Witnessing the testing and commissioning for generator excitation system and gas turbine start-up frequency converter (SFC).
  - Witnessing the testing and commissioning for batteries, battery chargers and UPS system.
  - Preparing and reviewing with all related contractors and dispatch center, the energization procedures for the plant, starting with switchyard energization and then back energizing for the main & auxiliary transformers to energize the M.V switchgear and after that starting up the unit and synchronization.
- After turn over (Maintenance):
  - Responsible for electrical periodic maintenance & troubleshooting for Gas Turbine Generator units – 250MW:
    - Excitation Equipment.
    - Starting frequency converter.
    - Generator.
    - Gas turbine generator unit auxiliary system.
  - Preparing and reviewing the spare parts list required for two years of operation for all equipments.
  - Preparing maintenance programs for generators and auxiliary systems, main and auxiliary transformers, MV & LV switchgear, 500KV air insulated switchyard, 220KV air insulated switchyard.
  - Follow up the maintenance programs, periodic inspection for electrical equipment, analyze, and troubleshoot all faults and errors.

Field of experience :

- Experienced in power plant project contracting, engineering, construction, testing, commissioning, start-up, operation and maintenance in the fields of electric Power Generation (Steam / combined cycle turbine generators), large capacity Power Transformers, switchyard, and all auxiliaries of the plants (e.g. MV & LV switchgears, 6.3KV large capacity motors/various size LV motors, Motor control centers, Batteries & Chargers, UPS, Indoor/Outdoor lighting systems, MV/LV power cables, cable trays, Duct Banks, Earthing systems & Lightning systems).
- Experienced in power plant projects engineering, procurement & construction in the Arabian Gulf Area.
- Witnessing the electrical equipments factories and site functional tests (pre-commissioning / commissioning) of the plants.