### 100302-ELE-2DPQST-E-2003

# Lead Electrical Engineer

Holds a B. Sc. in Electrical Power & Machines Engineering and has about 19 years hands-on experience in testing and commissioning, construction, sales and marketing, project management & site management with an enriching experience of work with reputed multinational companies like Saudi Electricity Company & Al-Gihaz Holding. Handled diverse activities such as project planning, scheduling, cost-control, resource planning and management with success, for several power projects (500KV / 380KV / 220 KV / 132KV / 115KV / 66KV / 13.8KV). Also Upgrade Power Transmission System at SAOO (Saudi Aramco Oil Operation).

### PERSONAL DATA

Nationality : Egyptian
Birth Date : 27/09/1979

Gender : Male
Marital Status : Married

Residence : Currently KSA

# **EDUCATION**

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

2003

### **LANGUAGES**

Arabic : Native Language

English : Good

#### COMPUTER SKILLS

: Windows, MS Office (Word, Excel, Access, Power Point), Internet

: Programming Languages (Fortran, C++ & Matlab)

PLC Device

Electrical Design (Electronic work bench and PSpice)
Simulation Programs (In touch, Isa graph & PSCAD)

### TRAINING COURSES AND CERTIFICATIONS

: At South Network Training Center, Helwan:

- Instrument Transformer and power measurement.
- Protection Fundamentals.
- Feeder protection.
- Digital protection.
- Electrical Control Circuits and Diagrams for Substation.

: Training at Talkha Electric Power Station for 2 years.

: Programming and testing the electrical instrument related to rockets in the Army.

: Matlab programming course.

### CHRONOLOGICAL EXPERIENCE RECORD

Dates : From 2015 till now Employer : Al-Gihaz Company

**Projects**: Upgrade Power Transmission System at Saudi Aramco (SAOO):

115/4.16KV AIN DAR GOSP-1 S/S – East Saudi Arabia
115/4.16KV AIN DAR GOSP-2 S/S – East Saudi Arabia
115/13.2KV AIN DAR GOSP-4 S/S – East Saudi Arabia
132/13.8KV AIN DAR WIP S/S – East Saudi Arabia

115/13.2KV SHED GOSP-2 S/S – East Saudi Arabia
115/4.16KV SHED GOSP-3 S/S – East Saudi Arabia
115/4.16KV SHED GOSP-5 S/S – East Saudi Arabia

• 115/13.2KV SHED ACC S/S – East Saudi Arabia

• 66/4.6KV ABQAIQ GOSP-5 S/S – East Saudi Arabia

• 115/4.16KV HAW GOSP-2 S/S – East Saudi Arabia

• 115/4.16KV HAW GOSP-3 S/S – East Saudi Arabia

115/4.16KV HAW GOSP-4 S/S – East Saudi Arabia

115/13.8KV HARADH GOSP-1 S/S – East Saudi Arabia
115/13.8KV HARADH GOSP-2 S/S – East Saudi Arabia

• 115/4.6KV HARMALIYAH GOSP-1 S/S – East Saudi Arabia

115/4.6KV HARMALIYAH GOSP-1 5/5 – East Saudi
115/4.16KV HAW WIP S/S – East Saudi Arabia

• 115/13.8KV UTHMANIYAH WSP S/S – East Saudi Arabia

115/4.16KV UTHMANIYAH GOSP-4 S/S – East Saudi Arabia

• 115/13.8KV UTHMANIYAH GOSP-7 S/S – East Saudi Arabia

• 115/13.8KV UTHMANIYAH GOSP-8 S/S – East Saudi Arabia

Job title
Job Description

Lead Electrical Engineer

Assumed the responsibility of Lead Electrical Engineer at Al-Gihaz Company in AlGihaz Industrial Project Business Unit. Such multitasked role includes dialogue with clientele, preparation for basic and detail design of 50%, 90% and IFC Packages, review of detail design 50%, 90% and IFC packages, technical requirements, preparation of material take-off (MTO) and material requirements, review of vendor technical offers, vendor and client meetings, review of purchase requisitions (PR), preparation of technical bid evaluations (TBE), technical appraisals (TA) and material submittals, review of all nonmaterial requirements packages (NMR's) and interconnection diagrams along with the cable schedules, red line and mark-up drawings, involved in the planning schedule for activity preparation and finalization, shutdown schedule preparation, bidding meetings, site visits and material take off (MTO).

- Involved in new projects site visit, estimation.
- Preparation of Red line drawing as per the site condition.
- Coordination with vender in case of equipment failure.
- Preparation of Request for Inspection (RFIs) for Material receiving.
- Excellent knowledge in Saudi Aramco Standards such SAMSS, SAES,

- SATIP, SATR, SAIC.
- To supervise the testing and commissioning work in 69KV & 115KV substation in all areas of Gas Oil Separation Plant (GOSP) and Water Injection Plant (WIP) in North, Central and South Ghawar in Saudi Aramco.
- Design review, procurement, resource management, Risk management, cost management.
- Planning for Partial Shutdown or cutover (Total Shutdown).
- Coordination with ARAMCO team, PMT, PSED, POD (Power + Relay) plant Maintenance.
- Presenting the planning prior to the shutdown and progress review meeting with Saudi ARAMCO team.
- Comply with the Saudi ARAMCO procedure and standards of Safety, QAQC, work permit etc. during execution period.
- Testing of outdoor Switchyard equipment's, Dead Tank Circuit Breakers (DTCB), Insulator switch, Earth, Switches, (motor operated & hand operated) 115KV tubular bus bar, Free Standing CT, CVT, Surge, arrestors, Circuit Switcher, etc.
- Testing & commissioning breaker control protection panel, Transformer protection panel, line protection panel, downstream incomer panel of (13.8KV & 4.16KV), of MCCB 400/220V, ACDB & DCDB panels, modification work, Testing of SEL 487-E, SEL 311L, SEL 451-5 & SEL 751 type relays.
- Preparation of Energization as per Aramco standards and test reports.

**Dates** From 2011 till 2015

**Employer** Saudi Electricity Company

132/13.8KV Khalidiya S/S. Nairan – Saudi Arabia **Projects** 

132/33KV Al-Namas S/S. Abha - Saudi Arabia

380/132/13.8KV Namerah S/S, Baha – Saudi Arabia

132/13.8KV Baish S/S, Jizan - Saudi Arabia

132/13.8KV Al-Khaniq S/S, Najran – Saudi Arabia

132/13.8KV Jizan Town S/S, Jizan - Saudi Arabia

132/33KV Sabia S/S, Jizan - Saudi Arabia

132/33KV CPS-2 S/S, Jizan - Saudi Arabia

380/132/13.8KV Al-Shuqaiq S/S, Jizan – Saudi Arabia

132/33KV Dhran Al-Jnoub S/S, Najran – Saudi Arabia

132/13.8KV Khamies South S/S, Abha – Saudi Arabia

380/132/13.8KV Muhaiel West S/S, Abha - Saudi Arabia

380/132/13.8KV Nagran University S/S - Saudi Arabia

132/13.8KV Roukibah S/S – Saudi Arabia

132/13.8KV Iskan S/S - Saudi Arabia

Job title Senior Commissioning Engineer (Site Team Leader Comm. Coordinator)

- Prepare & review the site test procedure and test sheet formats.
- Coordinate with the testing and commissioning subcontractors and supervise them during work execution.
- Prepare the testing schedules and energization procedure.
- Supervise installation, testing and commissioning for EHV, HV and MV substations.
- Performing Scheme design developing and modification.
- Supervise installation, testing and commissioning for different types of

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Job Description

- latest Protection, inter-tripping and fault recording Equipment.
- Supervise installation & testing all types of protection relays (distance, differential), bus bar and transformer stability test.
- Carry out all required function and scheme check tests for different manufactures schemes.
- Scheme Check for Relay panels & Bus bar protection panel.
- Prepare the procedure for Tr. & B/B stability and perform the Tr. & B/B stability test.
- Supervise installation, testing and commissioning of 380, 132, 33 & 13.8KV Control Panels, Scheme Check.
- Supervise installation, testing and commissioning of 380, 132, 33 & 13.8KV Relay Panels, Scheme Check.
- Supervise the termination of control and protection panel.
- Perform interfacing check & over all interlocking check.
- Carry out function check for AVC, ABTS system.
- Carry out all tests for power cables testing & commissioning works.
- Carry out all tests on transformer, C.T, V.T, C.B (Primary injection test, Secondary injection test, Winding resistance test, Polarity test, Knee point test, Ratio test & Resistance test) and Switchgear equipment.
- Supervise installation, testing and commissioning for new installation in the area substations reinforcement.
- Supervise installation, testing and commissioning of Digital Energy Meter (ABB).
- Supervise installation, testing and commissioning of Synchronizing panel and scheme Check.
- Supervise installation, testing and commissioning of Load Shedding Panel & SCADA Interface Panels.
- Supervise installation, testing and commissioning of Power Factor correction in SOA (Automatic Capacitor Control System) ACCS.
- Perform Configuration for Sequence of Events Recorder (SER) & Fault Recorder (FR) and apply testing by injection.
- Officially visited various substations in southern region of K.S.A. for the preparation of modification in protection Scheme of existing substation.

**Dates** 

From 2004 till 2011

**Employer** 

Egyptian Electricity Transmission Company

Job title

Testing & Commissioning Engineer

Job Description

- Installing and testing protection relays in transformers stations 220/66/11KV.
- Supervised assembly and erection to completion of outdoor 220/66/11KV equipment, control and protection system.
- Doing the basic tests for new transformers stations and put it in service.
- Testing and calibration of measuring instruments like voltmeters, amp meters, power meters, frequency meters, PF meters, power recorder, energy meters and transducers.
- Design and testing of inter looking schemes, control and alarm schemes, synchronizing schemes, voltage regulating schemes, bus bar schemes and breaker failure schemes.
- Calculating operating and setting values for protection relays.
- Maintaining and designing control circuits for any part in transformers station (i.e. power transformers, circuit breakers, isolators,

- compressors, etc.).
- Working on the operating programs for the digital relays such as ABB, SIEMENS, AREVA, SEL and G.E.
- Testing power transformers (winding insulation, ratio test, D.C. resistance test and vector group test).
- Testing circuit breakers (measuring contact resistance, measuring closing and tripping time and measuring circuit breaker insulation).
- Testing current transformers (insulation test, saturation test (magnetic curve), polarity test and ratio test).
- Testing voltage transformers (insulation test and ratio test).
- Testing the protection relays in the transformer power stations with the device tester as (Manta Savarker fregaa300 Isa Q.Z.).
- Working in construction the distance, over current, differential protection relay in the transformer power station such as: AREVA Micom P441, p442, P143, P120, etc. SEL311c Siemens 7SA610, 7SA611, 7UT612, 7SJ602 G.EDTP- ABB REL511, 316x4, REF542, RET521v2.3 transformer protection A/R SPAD340c KBCH120 KCGG142 MICRO MHO L8 LH1W RD110 RAZFE R30 D202 FAULT RECORDER (HATHAWAY)).
- Testing and commissioning all distance protection Relays and power transformer commissioning in Kafr Elzayat substation (500KV).
- Witness upon two Companies (EGEMAC & SIEMENS) in Kafr Elzayat substation (500/220/66KV).
- Bus bar and Breaker fail scheme (EHV & HV substations).
- Transformer & Generator feeder scheme, Stability & Sensitivity test, AVR panel scheme, load shedding panel scheme Auto Bus Transfer scheem, downstream incomer scheme, Capacitor bank scheme, Aux. Transformer scheme.

**Dates** : From 2003 till 2004

**Employer** : Potable Water & Sanitary Drainage Field – Light Current Applications

Job title : Protection Engineer

**Job Description**: • Protected Generators, Motors and Transformers from over current and earth fault.

• Designing and construction of electrical control panel for all operated water pumps.

#### **Technical Skills:**

- General Electric Motors Protection Devices Software.
- Siemens Protection Devices Software.
- Areva Protection Devices Software.
- ABB Protection Devices Software.
- Omicron (Protection Devices Tester) Software.
- Frija 300 (Protection Devices Tester) Software.
- Differential Distance Over Current REF.
- Testing all protection relays of 500KV and 220KV over head lines.
- Testing all protection relays of power transformer.
- Protection Test Equipment and Software:
  - Programma from GE Energy SVERKER (650 & 750).
  - OMICRON (CMC X56 family and CT Analyzer).

- FREGAA 300.
- ISA RTDS and TDMS software.
- MEGGER PCIT/S1/MIT.

### Field of experience

- Background in design and experience in protective relays testing.
- Experienced in design of control, protection schemes and power system high voltage equipment installation and testing.