

102023-ELE-124MOPSTyz-E-2009

Testing & Commissioning Service Engineer

Holds a B. Sc. in Electrical Power & Machines Engineering and a Diploma in Power System Protection. Has about 12 years of experience in Electrical Power System Engineering, covering the full life cycle of Electrical Substations HV/MV/LV at the field of Utilities, Energy, Industry and oil and gas.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 29/07/1986
Gender : Male
Marital Status : Married
Residence : Currently KSA

EDUCATION

- : B. Sc. in Electrical Power & Machines Engineering, Helwan University, 2009
- : Power System Protection Diploma, EIT Institute (IEEE Certified) Australia, 2011
- : Postgraduate Diploma in Electrical Engineering, Alexandria University, 2012

LANGUAGES

Arabic : Native Language
English : Fluent

COMPUTER SKILLS

- : Windows, MS Office (Word, Excel), Internet
- : ETAP (Power System Analyzer)
- : MATLAB SIMULINK
- : Schneider ECODIAL
- : PS CAD

TRAINING COURSES AND CERTIFICATIONS

- : Electronic Kits Trouble Shooting, Italian Institute (Don Bosco).
- : DCS Centum 2200, Yokogawa Training Center, Bahrain.
- : English: ILETS BAND 6.
- : Training at Ministry of Electricity & Energy Power Generation Sector.
- : Training at Ministry of Petroleum Refinery Sector Western Desert.

CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From May 2017 till now
- Employer** : WAHAH ELECTRIC SUPPLY COMPANY OF SAUDI ARABIA (WESCOSA)
- Job title** : TESTING & COMMISSIONING SERVICE ENGINEER
- Job Description** :
- Digital Relay configuration, acceptance test and final setting test.
 - Bus bar, Transformer differential, line differential stability test.
 - Digital relay power system Automation configuration.
 - Function and point to point check test of HV protection panel and switchgear include wiring modification and scheme check and final red mark.
 - Switch gear Inter-trip and interlock scheme check internal and external (End to end test between switchgears) and power transformer Alarms and Trips Interface.
 - End to end test between switchgears.
 - POWER TRANSFORMER testing including TTR, PI, Winding Resistance, vector group check and TAN DELTA test.
 - Power Transformer mechanical devices check (bokhlouz relay, sudden pressure, pressure relief, oil level, OTI, WTI, Pressure Vacuum gauge).
 - MV CB testing including Timing, HIPOT, Contact resistance IR, VACUUM INTEGRITY and spring motor charging current.
 - MV Contactor testing including Ride through timing, IR and HIPOT.
 - ACB testing, including IR, Contact resistance and tripping.
 - Solid State relay testing of ACB using primary and secondary injection including short delay, long delay, instantaneous and Ground Protection.
 - Dry transformer testing including TTR, Winding resistance and PI.
 - Adjustable speed drive testing, commissioning and configuration.
 - Auxiliary relay testing.
 - MV, LV Switchgear function test.
 - Bus bar, Transformer differential, line differential stability test.
 - Panel boards testing.
 - LV, MV motors testing including winding resistance IR, space heater check and RTD loop checking.
 - Variable speed drive Allen Bradley Ac drive testing, commissioning, trouble shooting and configuration.
 - Experience with RELAYS: Testing and commissioning of electrical protection relays from various manufacturers ABB, SIEMENS, GE, SEL, BECKWITH, ALSTOM such as O/C relays, instantaneous O/C relays, time delayed O/C relays, Definite Time Relays, Directional O/C Relays, REF, Reverse Power Relays, Differential relays and Bus bar protection relays, Distance Protection Relays, Generator protection relays, Motor protection relays, etc.
 - Experience with AREVA RELAYS: MICOM – P543/545 - Current Differential Protection Relay, MICOM – P120 – O/C & E/F Relay and MICOM – P127 – Directional O/C & E/F Relay.
 - Experience with ABB RELAYS: REF 541, REF 543, REC 670 – Feeder Protection Relay, REU – Over Voltage & Under Voltage Relay, RET 670 – Transformer Protection Relay, REL-670 - Distance protection relay, REB-670 - Bus bar protection relay, REB-500 - Bus bar protection relay.
 - Experience with SIEMENS RELAYS: Numerical Relays 7SJ600 – O/C & E/F Relay, 7SJ61 – O/C & E/F Relay, 7SJ62 – Directional O/C & E/F

Relay, 7UT612 – Transformer Differential Relay.

- Experience with SEL RELAYS: SEL 451 Auto-Reclose and Sync check Relay / SEL 751 Feeder Protection Relay / 710, 849 motor protection relay / 787 Transformer protection relay / 411L, 311L Bus bar differential / 300G, 700G Generator differential.
- Experience with GE RELAYS: GE 650 Bay Controller, GE 750 Feeder Prot. Relay, F60, F30/ MIB – HID high impedance differential, L90, C60, T35, T60, 869, 850, 469, 350.
- TESTING EQUIPMENT KNOWLEDGE:
 - Secondary injection Freja – 300, 306/ omicron CMC 256, 356.
 - Primary Current Injection Kit (Mot-PIK, ODEN, RAPTOR, HC1, HC-2, HC3, MS2).
 - Single Phase Secondary Injection Manual Tester (Sverker 750/760 Relay Test Set).
 - Circuit Breaker Analyser (CT-6500, VANGUARD, EGIL).
 - Earth or Ground Resistance Tester (C-A 6460, MEGGER DET).
 - Multi test kit Omicron CPC -100, for Transformers, CB up to 800A, CT, Ground resistance.
 - Vanguard TTR tester and winding resistance tester.
 - Power Factor test for transformers and surge arrestors using DELTA 2000, DELTA 4000 and CPC 100TD1.
 - MOTOR RTD calibration and testing using fluke RTD calibrator.
 - Oil path and Dry path calibration equipment for Power Transformer OTI, WTI indicator switches.
 - AC/DC Hi-pot Phenix.
 - DILO/WIKA - SF6 Gas Handling Units along with accessories for Dew point & % Purity testing and other dissociative components of the gas.
 - MEGGER DLRO10A / 200A.
 - FLUKE 5 KV insulation tester.
 - Omicron CT analyzer.

Dates	:	From Nov. 2010 till May 2017
Employer	:	WDEPC
Project	:	ALEXANDRIA NORTHCOAST
Job title	:	POWER PLANT ELECTRICAL TEAM LEADER
Job Description	:	<ul style="list-style-type: none">• Use standard electrical engineering practices to develop designs and reports.• Prepare computer simulations and studies including AC and DC load flow, short-circuit availability, motor-starting, and protective relay coordination studies.• Perform site investigations in substations and along railroad tracks.• Review contractor shop drawing and testing submittals.• Assist with preparation of technical and cost proposals.• Assist with preparation of proposal interview presentations.• Actively participate in Quality Control of design for completeness and accuracy.• Power transformer oil filling and filtration.• Adjust controls to generate specified electrical power or to regulate the flow of power between distribution substations equipment generating

stations and Operating energy.

- Perform the required maintenance activities during the shift.
- Started studies for electrical system and interconnection between plant and Egyptian grid at Nuclear generating power plant as part of the preparation to participate at Egypt Dabaa Nuclear power plant 3rd generation with VVER-1200.
- Perform all electrical switching operations from LV 400 V up to HV 500KV, according to the implemented interlocking plane between AUX substations, Generator GCB, and high voltage network.
- Perform the required work permit procedure to assure the safety of persons and equipment.
- Perform the required isolation plane for overall shutdown and daily maintenance activities.
- Perform the required action during the shift in case of emergencies.
- Management of HV electrical system switching operations with CENTRAL DISPATCH CONTROL per operations procedure.
- Coordinate work and operations on or rear HV system to ensure the safety of employees.
- Load management as per the demand and production.
- Operation of switchyard of 21/500KV off load tap changer, 21/6.3KV regulated On load tap changer transformer.
- Responsible for all the operation and maintenance work done in shift.
- Operation of switchyard of 21/500KV off load tap changer, 21/6.3KV regulated On load tap changer transformer.
- Monitor power plant equipment and indicators to detect evidence of operating problems.
- Control generator output to match the phase, frequency, or voltage of electricity supplied to panels.
- Start or stop generators, auxiliary pumping equipment, turbines, or other power plant equipment as necessary.
- Communicate with systems operators to regulate and coordinate line voltages and transmission loads and Frequencies.
- Inspect records or logbook entries or communicate with plant personnel to assess equipment operating status.
- Take regulatory action, based on readings from charts, meters, and gauges, at established intervals.
- Record and compile operational data by completing and maintaining forms, logs, or reports.
- Operate or maintain distributed power generation equipment, including fuel cells or microturbines, to produce energy on-site for manufacturing or other commercial purposes.
- Place standby emergency electrical generators online in emergencies and monitor the temperature, output, and lubrication of the system.
- Replenish electrolytes in batteries and oil in voltage transformers, and reset tripped electric relays.
- Receive outage calls and request necessary personnel during power outages or emergencies.

Dates : From May 2015 till Nov. 2015
Employer : Ansaldo Energia
Project : 6th of OCTOBER POWER PLANT

- Job title** : ELECTRICAL SYSTEM COMMISSIONING & START-UP
- Job Description** :
- Prepare approvals of the problem solving report plans, schedules and provides coordination and work direction as required for the preparation of designs, processes, reports, correspondence and related data and assures the efficiency, adequacy and conformance to overall objectives of project.
 - Formulate the basis for an engineering study or project or design in any basic or special engineering field by analyzing and evaluating all data pertinent to assignment.
 - Lead and recommend new continuous improvement solutions for installations or modifications to improve existing facilities and standardization within specific fields of endeavor.
 - Discuss, recommended solutions, coordinate and resolve problems with personnel throughout Egyptian Electricity Holding Company and subsidiaries and with outside of Company organizations. Act as Technical Consultant when required.
 - Lead the implementation and operation of all kind of recommended solutions.

Projects:

- OIL & GAS:
 - ARAMCO HAWYIAH UNIZAH GAS STORAGE Project with SAMSUNG ENGINEERING - 230KV GIS, 34.5KV GIS and 13.8KV SG Substations Testing and commissioning
 - SAUDI ARAMCO Lubreef investigation and technical analysis for the voltage dip happened from Marafiq Company
 - Retrofitting and re-installation of failed MV MOTOR FEEDER due to flash over
 - ARAMCO HAWYIAH GAS PLANT EXTENSION Project with SAIPEM - Testing and commissioning of 2x80 MVA Substations + 2x15 MVA substations including all substation components
 - SAUDI ARAMCO Lubreef MV Motors power factor correction capacitors failure investigation and technical analysis
 - SAUDI ARAMCO YANBU NGL MV Motor control center retrofitting and modification of old unsafe MV MCCs
 - BALL UNITED FOR CANS 2nd Dammam Industrial City: PM job
 - CHEMANOL COGENERATION Overfrequency trip and Blackout investigation and technical analysis
 - SAUDI ARAMCO EAST-WEST PUMP STATION #1 with SEPCO - Testing and commissioning of 132KV GIS & 2x100 MVA MV substations
 - SASREF Turn around 2019
 - SAUDI ARAMCO EAST-WEST PUMP STATION #5 with SEPCO - Testing and commissioning of 132KV GIS & 2x80 MVA MV substations
 - Technicas Runidas - SS 20 EPC 10, Hydrocracker unit Jazan Refinery (ARAMCO Jazan Refinery & Terminal point)
 - Technicas Runidas - SS 23 EPC 12 Hydrocracker unit Jazan Refinery (ARAMCO Jazan Refinery & Terminal point)
 - Technicas Runidas - SS 24 EPC 5 Common Utilities Jazan IGCC

- (ARAMCO Jazan Refinery & Terminal point)
- Technicas Runidas - SS 127 EPC 5 Common Utilities Jazan IGCC (ARAMCO Jazan Refinery & Terminal point)
- SAIPEM ENGINEERING - SS 401, SS 301 EPC 1 SARU UNIT Jazan IGCC (ARAMCO Jazan Refinery & Terminal point)
- SAIPEM ENGINEERING - SS 30, SRU UNIT Jazan Refinery (ARAMCO Jazan Refinery & Terminal point)
- SINOPIC - SS 295 EPC 5 (Common Utilities) Jazan Power block (ARAMCO Jazan Refinery & Terminal point)
- SINOPIC - panel operation and instrument building 95 EPC 5 (Common Utilities) Jazan Power block (ARAMCO Jazan Refinery & Terminal point)
- SK Engineering - SS 77 EPC 9 (EXHUST GAS AND FLARE AREA) transformer to switchgear signal testing and configuration (ARAMCO Jazan Refinery & Terminal point)
- SK Engineering - SS 005 EPC 9 SK : VFD 34 variable frequency drive configuration and commissioning (ARAMCO Jazan Refinery & Terminal point)
- SK Engineering - SS 77 EPC 9 8 Variable speed Drive configuration (ARAMCO Jazan Refinery & Terminal point)
- JSC / DEWOO - SS 14 EPC 7 (ARAMCO Jazan Refinery & Terminal point)
- SEPCO - POWER BLOCK SS110 (ARAMCO Jazan Refinery & Terminal point)
- PETROFAC - SS 160 EPC 1, 2 Farm Tank TERMINAL POINT (ARAMCO Jazan Refinery & Terminal point)
- Npcc Abu Dhabi - PLATFORM 7422 POWER SUPPLY FOR SEA RIGS on-shore Switchgear Installation and Commissioning
- SEPCO Aramco East-West Pipe Line Projects Master Gas Plan phase 2 pump station 5 132KV substation commissioning
- SAUDI ARAMCO ALJUBAIL INDUSTRIAL POERT SULFER EXPORT UNIT
- SAUDI ARAMCO Uthmanya Gas Oil Separation Plant
- SEPCO ARAMCO East-West Pipe Line Projects Master Gas Plan phase 2 pump station 1 extension 115KV substation commissioning
- Power Station & Electric Utility:
 - Ansaldo Energia - 600MW Power Plant Electrical BOP commissioning
 - ABB - 220KV one and Half GIS commissioning
 - SIEMENS - 500KV double busbar double CB GIS maintenance and Operation
 - MITSUBISHI Heavy Industries - 750MW CAPP
 - Atlas Copco - commissioning of 3.2MW Gas Compressors
- Infrastructure: ORLANDO 2 Resort at AIN Sokhna Egypt, MV, RMU system installation and inspection.
- Industrial: PLC & Classic Control plastic Injection Machine Maintenance (Free Lancer).
- Trainer: Creative Training Center, Trainer for Diploma of power system distribution.

- Field of experience :**
- **Key Leading Skills:**
 - Managing site activities, controlling the project budgets, coordinating with different parts (client, vendor, contractor and company) to achieve the completion of work within targeted time and cost.
 - Decision maker, and brave enough to take the required actions after careful study and carry out the consequences of decisions.
 - Prepare long term / short term schedules and plans for the site activities.
 - Ability to take charge in difficult conditions.
 - Ability to handle resources from different nationalities and build a strong work chain between them.
 - **Key Technical Skills:**
 - Total 11+ years experience in the field of electrical power system passing through the whole life cycle of electric power, 7 years as Operation and Maintenance Engineer at 750MW Combined Cycle Power Plants and 4+ years as Testing and Commissioning Engineer.
 - 4+ years at SAUDI ARABIA as Senior Testing & Commissioning Team Lead of AIS/GIS substation activities from 500/220/132/33/13.8/0.48KV, 3- ϕ System, Control & Relay panel for Generator, Transformer, and Bus Coupler, Bus-Transfer and Line feeder. Testing & Commissioning activities for Protection relays, Power Transformers, Voltage Regulators, CB's, PT's, CT's, Capacitors, HV Switches and Station Service Equipment's and AC/DC System such as UPS, Battery Chargers, Batteries and Transfer Switches and VFDs.
 - Experience with Protection RELAYS & Protection System:
 - ❖ Testing and commissioning of electrical protection relays from various manufacturers ABB, SIEMENS, GE, SEL, BECKWITH, ALESTOM such as O/C relays, instantaneous O/C relays, time - delayed O/C relays, Definite Time Relays, Directional O/C Relays, REF, Reverse Power Relays, Differential relays, and Bus bar protection relays, Distance Protection Relays, Generator protection relays, Motor protection relays, etc.
 - ❖ Strong technical ability to analysis the incidents events, provide technical Engineering solutions, and reverse engineering.
 - Experience with SEL RELAYS: SEL 451 bay control Relay / SEL 751 Feeder Protection Relay / 710, motor protection relay / 787 & 487T Transformer protection relay / 411L, 311L Line protection relay, 587Z Bus bar differential & 487B low impedance bulbar differential, 700G Generator differential.
 - Experience with AREVA RELAYS: MICOM – P543/545 - Current Differential Protection Relay, MICOM – P142/143 – O/C & E/F Relay, and MICOM – P127 – Directional O/C & E/F Relay, C264 Bay control unit.
 - Experience with ABB RELAYS: REF 541, REF 543, REF615, REC 670 – Feeder Protection Relay, REU – Over Voltage & Under Voltage Relay, RET 615 – Transformer Protection Relay, REL615 Line protection relay, REB-670 - Bus bar protection relay, REB-500 - Bus bar protection relay.

- Experience with SIEMENS RELAYS: Numerical Relays 7SJ600 – O/C & E/F Relay, 7SJ61 – O/C & E/F Relay, 7SJ62 – Directional O/C & E/F Relay, 7UT612 – Transformer Differential Relay.
- Experience with GE RELAYS: GE 650 Bay Controller, GE 750 Feeder Prot. Relay, F60, F30/ MIB – HID high impedance differential, L90, C60, T35, T60, 869, 850, 469, 350.
- Other Skills:
 - Ability to work in a team setting environment; has strong leadership and good command with people.
 - Adequate knowledge on the basic principle of management functions i.e. planning, organizing, delegating, and controlling and its application to construction management.
 - Ability to communicate efficiently in English, both oral and writing. Can prepare technical correspondences and reports.
 - Adequate knowledge and experience in administering contract agreement in both general and special provisions.
 - Can distinguish the contractual roles of the Parties in the contract i.e. Client/Owner, Design Consultant, PMT and that of the Construction Contractor or subcontractor.
 - Able to demonstrate knowledge of contracting practices, procurement practices, and various standard principles.