

100863-ELE-PT-E-2002
Electrical Testing & Protection Engineer

Holds a B. Sc. in Electronic & Communication Engineering and a Diploma in Protection of Power System. Has about 9 years hands-on experience mainly in protection, testing and commissioning at several substations.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 06/04/1980
Gender : Male
Marital Status : Married
Residence : Helwan

EDUCATION

: B. Sc. in Electronic & Communication Engineering, 2002
: Diploma in Protection of Power System

LANGUAGES

Arabic : Native Language
English : Very Good

COMPUTER SKILLS

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

TRAINING COURSES AND CERTIFICATIONS

- : Certifications from Network Training Center (NTC) – Ministry of Electricity & Energy:
- Instrument transformer and Power transformer:
 - C.T. & V.T. testing, wiring and its equivalent circuit.
 - Power measuring using two-watt meters.
 - Protection fundamentals:
 - Electromechanical relays.
 - Static relays.
 - Digital relays.
 - Auxiliary relays.
 - Bus-bar protection:
 - Concept of bus bar protection.
 - Study Bus-Bar protection schemes, study the different between them.
 - Training on stat relay (BBC), RADS (ASIA).

- Main basics of digital relays:
 - Introduction to microprocessor relays and protection systems.
 - Hardware of digital protective relays.
 - Differential protection:
 - Course in Differential protection schemes and study the problems could restrain the true operation.
 - Training on RADSAB (ASIA).
 - Distance protection:
 - Course in Distance protection schemes and study the principle of Impedance Relays.
 - Training on relays:
 - Static: RAZOA (ASIA), SD3 (BBC).
 - Digital: MICOM (ALSTOM).
 - Electromechanical: RD110, LH1a.
 - Programmable Logic Controllers (PLC):
 - Features of Siemens S7-200 and S5 micro plc.
 - Programming tricks and exercise.
- : Training at National Cement Co. (one month).
- : Training at Egypt Telecom (one month).
- : Training at Rectephase Co. in FRANCE, Paris, ANSI in capacitor bank.

CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From Mar. 2003 till now
- Employer** : Egyptian Company for Electricity Transmission (EETC)
- Job title** : Protection, Testing & Commissioning Engineer of 66/11KV Substations
- Job Description** :
- The job includes testing & commissioning work of the protective relays installed on the following equipment:
 - 11KV feeders:
 - Over Current Relay.
 - Directional Over Current Relay.
 - Earth Fault Relay.
 - Directional Earth Fault Relay.
 - 66/11 (Δ/Y 11) KV Power Transformer, 11KV side:
 - Over Current Relay.
 - Earth Fault Relay.
 - Restricted Earth Fault Relay.
 - 66/11 (Δ/Y 11) KV Power Transformer, 66KV side:
 - Differential Relay.
 - Over Current Relay.
 - Breaker Failure Relay.
 - Mechanical Protection:
 - Buchhloz Relay.
 - OLTC Buchhloz Relay.
 - Pressure Relief Relay.
 - Oil Temperature Relay.
 - Winding Temperature Relay.
 - 66KV Line Feeder:
 - Distance Relay.
 - Over Current Relay.

- Directional Over Current Relay.
 - Earth Fault Relay.
 - Directional Earth Fault Relay.
 - Breaker Failure Relay.
- 66KV Bus Bar:
 - Bus Bar Differential Relay.
- I have the ability to program the protective numerical relays such as:
 - SIEMENS, (7SJ600 – 7SG602 – 7UT.. – 7SA.. – 7SD..),
 - AREVA (MICOM P441 – P127 – P126 – P126),
 - SEL (SEL321) & GE

by a relevant software such as Digi4, MiCOM S1, SEL5010 respectively; and to test using advanced test sets isa "DRTS-6", OMICRON "CMC256-6" and have joined in the commissioning work of "Elbadrasheen" & smart village substation "EGEMAC". EI-Kureimat 66KV "Siemens" and Elmashtel "Areva".

Job title: Electrical Power Engineer, this position aims to supervise and operate a lime stone breaker.
- Responsibilities:
 - Testing and operating protective relays using modern computerized testers.
 - Installing and commissioning protective relays for transformers and transmission lines.
 - Panel board termination, control and start-up activities.
 - Installing, commissioning, wiring and testing of current transformers and voltage transformers.
 - Installing and commissioning power transformers.
 - Fault Analysis.
 - Dealing with different types of electrical blueprints including Siemens, ABB, Electroimpex, Egemac and Marlinegran.
- Accomplishments:
 - Installing and commissioning the extension of Faisal substation including 2 power transformers and 4 transmission lines.
 - Commissioning the new EI-Lathy substation.
 - Replacing the mechanical protective relays to digital relays in all substations within my region.
 - Replacing Air Blast and Minimum oil circuit breakers to SF6 in most of the substations within my region.
 - Working in power transformer substations H.V. networks.
 - Dealing with different types of electrical wiring drawings (EGEMAC, ABB, ELECTRO IMPEX, MARLINEGRAN, RUSSIAN, POLAND and GERMAN).
 - Having experience in Transmission & Distribution activities.
 - Installation and commissioning Primary & Secondary H.V. substation.
 - Panel board termination, control and start-up activities.
 - Testing and operating Protective Relay with using modern computerized testers like OMICRON and ISA.
 - Wiring & testing of current transformers and voltage transformers.
 - Replacement of 66 KV CB's from air blast and minimum oil to SF6 CB's.
 - Fault analysis.

- Achievements in EETC:
 - Replacement of Swedish "RAZOA" static distance relay by American "SEL" digital distance relay. "Tebin #7" substation.
 - Replacement of three EAW "RSQ4T1" electromechanical differential relays by SIEMENS "7UT612" digital differential relays, "Al Ayate" substation.
 - New installation of four American "SEL" digital distance relays, "El Alamain" substation.
 - Replacement of two EAW "RD110" & one BBC "LH1" electromechanical distance relays by SIEMENS "7SA611" digital distance relays, "El Warak" substation.
 - Replacement of four EAW "RSQ4T1" electromechanical differential relays by SIEMENS "7UT612" digital differential relays, "El Alamain" substation.
 - Replacement of two EAW "RD110" electromechanical distance relays by SIEMENS "7SA610" digital distance relays, "Kafr El Alow" substation.
 - Replacement of two BBC "LH1" electromechanical distance relays by SIEMENS "7SA610" digital distance relays, "Shamal El Saf" substation.
 - New extension work of two 66/11KV, 25 MVA "ELMACO" power transformers, "El Warak" substation.
 - Substitution work of 11KV feeders "EAW" by "EGEMAC", "Al Ayate" substation.
 - Substitution work of 6.3KV feeders "EAW" by "ABB", "Ain Helwan" substation.
 - Replacement of seven 66KV CB's "Polish" minimum oil CB's by "ABB" SF6 CB's, "Tebine# 3" substation.
 - Replacement of two 66KV CB's "EAW" air blast CB's by "ABB" & "EGEMAC" SF6 CB's, "Al Ayate" substation.
 - Replacement of five 66KV CB's "EAW" air blast CB's by "ABB" SF6 CB's, "El Warak" substation.
 - Replacement of five 66KV CB's "EAW" air blast CB's by "ABB" SF6 CB's, "El Alamain" substation.
 - Replacement of one 66KV CB "GE" Sf6 CB by "ABB" SF6 CB, "Abu Rawash" substation.
 - Replacement of 66/11KV, 12.5 MVA "EAW" power transformers by 66/11KV, 20 MVA "EGB" power transformers, "Al Ayate" substation.
 - Replacement of 66/11KV, 25 MVA "French" power transformer by 66/11KV, 25 MVA "ELMACO" power transformers, "El Warak" substation.

Dates : From Oct. 2002 till Mar. 2003
Employer : Fresh Company
Job Description : Electrical maintenance.