100312-ELE-CMS-E-2005
Electrical Construction & Commissioning Engineer

Holds a B. Sc. in Electrical Power Engineering and has over 5 years hands-on experience in electrical projects, maintenance, inspections, construction, testing and commissioning of Power Plants.

PERSONAL DATA

Nationality	:	Egyptian
Birth Date	:	05/08/1983
Gender	:	Male
Marital Status	:	Married
Residence	:	Beni Suef

EDUCATION

: B. Sc. in Electrical Power Engineering, Minya University, 2005

LANGUAGES

Arabic	:	Native Language
English	:	Very Good

COMPUTER SKILLS

: MS Office (Word, Excel, Access, Power Point), Internet
: AutoCAD
: PLC programming language (LAD, CSF and STL)
: Programming (C++.net), Microcontroller and SCADA

TRAINING COURSES AND CERTIFICATIONS

: English Course Level 07 in Military Force Institute.
: El-Kureimat Power Station 1300MW (for one month).
: Vibrex Company for Tunneling & Foundation (for two months).

CHRONOLOGICAL EXPERIENCE RECORD

Dates	:	From Aug. 2008 till now
Employer	:	INITEC Energia
Project	:	Nubaria III Power Station 750MW
Job title	:	Electrical Construction Supervisor & Commissioning Engineer

Job Description : In charge of the electrical construction work installation and the commissioning/start-up of CP-106 consortium with ALSTOM for steam turbine generator & condenser and CP118 for mechanical Equipment/pipe installation phase:

- Steam Turbine Generator:
  - Synchronous generator 324 MVA.
  - Generator protection Relay ABB MICOM P343.
  - Synchronizing SYNCHROTACT®5.
  - DCS contra cad system (ALSBAT30020).
  - TCS.
  - AC Motors 400 V - 3 Phases.
  - Submersible Pumps of 20KW.
  - Instrumentation.
  - HVAC system MIRACO and GREENHECK for (CTG building, STG building, Control building, Pump house, Oil and Grease building).
  - Fire system Chemetro AM2020 include fully fire system control (CTG building, STG building, Control building, Pump house, Oil and Grease building, Transformers/SYD area, Tie between the two power stations).
- Pump House:
  - 3 x centrifugal pump of 1.6MW.
- Intake Area:
  - Dredge system with slurry, cooling and hydraulic pumps unit.
  - Jip Crane of 10000 Kg of 4 motors 400 volt.

Contract CP-118:

- Heating, ventilation and air condition:
  - Install all wall mounted fans, roof ventilator, exhaust fans and their controllers/starters.
  - Fabricate and install duct work and its accessories.
  - Install diffusers, grills and volume damper for balancing and flexible connection.
  - Install all electrical required for proper operation of the HVAC equipment include local disconnect switches, local starters and control panels.
  - Testing, adjusting and balancing of air and HVAC system.
  - Test and record motor full load amperes, rpm and surface temperature of motor.
  - Check and record vibration on fan bearings and driver.
- Fire protection system:
  - Follow the requirement as per standard national fire protection association (NFPA).
  - Building fire detection systems.
  - Install all electrical devices and enclosures, appropriate rated and qualified.
  - Install all components to be compatible and suitable for operation with the appropriate site services and conditions.
  - Make all fields testing for component and equipment in accordance with contract specification and standard codes.
  - Fill out, Sign and submit all reports, Forms and certificate.
- Install all electrical cables, wiring and termination for all devices or panels which belong to this contract according to standard code IEEE and NEMA:

- Solar treatment skid.
- Dredge system.
- Sump pumps.

Contract CP-106:

- Steam turbine generator and auxiliaries:
  - Follow up component wiring and conduit for skid mounted equipment routed to conveniently located contractor supplied junction box.
  - Comply all work with all applicable codes and standards.
  - Make all skid electrical grounding pads.
  - Wire all steam turbine generator mounted devices and auxiliary skid mounted instruments.
  - Follow all electrical cable, wiring and termination beyond equipment and terminal boxes:
    - Condenser and water box vacuum system.
    - HP/IP Bypass system.
    - Drain valves.
    - Turning gear.
    - Make all loop checks.
    - Tube cleaning and debris filter.
  - Make loop test for digital input/output or analog input/analog individually simulated and demonstrated.
- Synchronous Generator and auxiliaries:
  - Complete all wiring and conduits/raceways to convenient boxes and panels.
  - Mount all parts of generator star point (CT's, PT's, SC's, LA's, etc.).
  - Generator protection.
  - Check all wiring between the generator star point to the generator protection relay.
  - Make all the injection test for CT's and PT's.
  - Supervise the vendor during commissioning test of the generator protection relay.
- Synchronizing:
  - Make all the injection test for CT's, PT's from yard.
  - Supervise the vendor during the synchronizing test.

During the project construction work:

- Check for compliance with requirements the electrical equipments at the arrival from Spain, France or other.
- Follow all the construction installation as per NECA standard code.
- Follow up the Cable tray & conduits installation according to the standard codes.
- Wire all steam turbine generator mounted devices and auxiliary skid mounted instruments.
- Make all skid electrical grounding.
- Install all electrical required for proper operation of the HVAC equipment include local disconnect switches, local starters and control panels.
- Follow the requirement as per standard national fire protection association (NFPA).
- Install all electrical cables, wiring and termination for all devices or panels which belong to this contract according to standard code IEEE and NEMA.

- Check all drawing revision update to get the work in prober way.
- Monitoring the subcontractor Quality, records and quality of the installation construction work (electrical) as cabling equipment skids evaluating work report document submittal.
- Monitoring Quality, records and quality of the electrical construction work and reviewing and evaluating the sub contractor (KAHROMICA) work report document submittal.
- Monitoring the vendors quality, records and quality the electrical commissioning work and start-up phase and reviewing and evaluating report document submittal.
- Approve of the construction work in accordance with technical norms applied in the contract or ALSTOM German applicable norms.
- Ensure variations are processed and approved.
- Write inspection reports and initiating Non-conformance Report, worksheets and equipment deficiency reports as needed.
- Ensure projects are executed in accordance with regulatory compliance.
- Follow up punch list items.
- Follow the contractor planning and report to the project management for any deviation from the contractor.

<u>During the project commissioning work:</u>

- Follow up the test and start-up procedure.
- Make all fields testing for component and equipment in accordance with contract specification and standard codes.
- Make all pumps test (Vibration, dp, RPM, rotation, no load and full load test).
- Check and test the fire system of detectors, panels, module, horns for operation starting.
- Check the systems signals to be ready for operation
- Follow the test protocols of all HVAC system of fans testing and Air condition tests:
  - Panels check.
  - Fans (Vibration, Noise, Temperature).
- Make all testing of CT's, PT's:
  - Meggering.
  - Polarity.
  - Turns Ratio.
  - Primary Injection.
- Check all interface signals between generator protection, SYD, AVR, TCS and main XFMR protection panel:
  - Loop check.
  - Function check.
- Check all the functions to be ready for final synchronising:
  - Generator testing.
  - Dummy test.
- Submit all the tests protocols.

<u>Further tasks:</u>

- Perform daily & weekly activity report to the Site Manager.
- Study the contracts specification related to the project to follow the requirement.
- Received the schedule of the project to get all priorities in site.

- Follow up the mount, test and start-up procedure.
- Check all drawing revision update to get the work in proper way.

Dates : From Nov. 2007 till Jul. 2008
Employer : INITEC Energia
Project : NEW TALKHA Power Station 750MW (CC)
Job title : Electrical Construction Supervisor & Commissioning Engineer
Job Description : In charge of the electrical construction work installation and the commissioning/start-up of CP106 consortium with ALSTOM for steam turbine generator & Auxiliary phase:

- Steam Turbine Generator:
  - 1x transformer 204/207/340 MVA – 220/19 KV.
  - 3 MCC's Electro George.
  - 20 x AC motors 400 V- 3 Phases.
  - HVAC system for (STG building).
  - Fire system AM2020 for (STG building).
- Pump House:
  - 3 x centrifugal pump of 1.6MW.

<u>Contract CP-106:</u>

- 400 Volt Motor Controls Circuit (MCC):
  - Complete all power and control cables required.
  - Check point to point continuity on all wiring.
  - Perform all testing on each motor control circuit including over loads, earth leakage, breakers and setting.
  - Complete the loop check to DCS.
- Relay panels:
  - Complete all wiring as per contract specification.
  - Check all miscellaneous equipment as per specification requirement.
  - Perform with vendor all proper tests for operation per each relay.
  - Verify with vendor that all relay set points are in accordance with manufacture's relay set point calculation.
- Large power transformer:
  - Complete all transformer control and auxiliary wiring.
  - Check the annunciate panel.
  - Make all test (mechanical trip to lock out relay, all the CT's, Back energize).
- Sump pumps.
- Circulating Water Pump.

<u>Responsibilities:</u>

- In charge of pre-commissioning, commissioning & testing supervision: Company Site Representative.
- Monitoring Contractor's Quality, records and quality personnel for compliance with requirements.
- Reviewing and evaluating subcontractor (KAHROMICA) work report document submittal.
- Writing inspection reports and initiating Non-conformance Report, worksheets and equipment deficiency reports as needed.
- Following up punch list items.
- Following up RFI documents.

- Follow up the test and start-up procedure for (Transformer, MCC, WL pumps):
  - Protection.
  - Earthling leakage.
  - Setting review.
  - Run Tests.
- The loop and the function tests.
- The signals to DCS for checking Loop and function.
- Submit all the tests protocols.
- Check all drawing revisions update to get the work in proper way.

Further tasks:

- Perform daily & weekly activity report to the Site Manager.
- Study the contracts specification related to the project to follow the requirement.
- Received the schedule of the project to get all priorities in site.
- Follow up the mount, test and start-up procedure.

Dates : From Sep. 2005 till Oct. 2007
Employer : DHCU Development & Housing Company for Utilities
Project : GABAL El ASFAR Waste Water Treatment Plant, Cairo
Job title : Field Instrument & Control System Engineer
Job Description : In charge of the electrical maintenance work of contract 16.1 & 16.2:

- Organize the distribution of routine work orders for the electrical team for the maintenance operations.
- Report all electrical problems to maintenance manager.
- Prepares with the preparation/planning engineer the overhauls of electrical equipment.
- Follow up the working parameters and alarms on electrical equipment for condition monitoring purpose.
- Requests availability under work permit of the packages or network, takes all isolation steps at the beginning of the works, gives back to the production department at the end of the works with relevant reporting and documents updating.
- Study all the preventive maintenance.
- Submit letters and performance reports.
- Programming, maintenance and troubleshooting of SIMATIC S5.
- Design programs with Zelio smart relay.
- Maintenance and troubleshooting of several instruments as:
  - Ultrasonic and Electromagnetic Flow Meters.
  - Pressure, Level, Temperature and Weight Transmitters.
  - Proximity Oxygen Analyzer Transmitter.
  - Flow, Pressure, Temperature, and Differential Pressure Switch.
  - Fire and Gas Detection.
- Planning Tasks.
- Reading electrical wiring diagram.
- Letters and Performance Reports.