TRAINING PACKAGE ON

TRANSMISSION LINE CONSTRUCTION INSPECTION

PowerConsult Limited

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TRANSMISSION LINE CONSTRUCTION INSPECTION

1. COURSE OBJECTIVES

- To equip participants with relevant knowledge to enable them effectively inspect the work of the contractor in order to ensure compliance with the relevant drawings and technical specifications.
- To identify and review the relevant design and technical documents required in the construction of overhead transmission lines.
- To identify and review the processes and various activities involved in the construction of overhead transmission lines.
- To discuss how to practically organise the inspection using a comprehensive quality assurance and control plan.

2. COURSE CONTENT

2.1 MODULE #PC T– J01 - TOWER/POLE FOUNDATION WORKS
2.1.1 Relevant design and technical documents required
2.1.2 Review of construction process
2.1.3 Review of activities under each process

- Setting out (at straight line and angle locations)
- Excavation (Good soil, poor soil, rocky soil, wet soil)
- Provision of lean concrete blinding course and a kicker for stub setting
- Steel reinforcement and form works
- Stub setting and provision of standard grounding
- Hold point for inspection and sign offs
- Concreting and concrete tests
- Backfilling

2.2 MODULE #PCT – J02 - TOWER/POLE ERECTION WORKS
2.2.1 Relevant design and technical documents required
2.2.2 Review of erection process
2.2.3 Review of activities under each process

- Checking of material quantity and quality
- Tower erection to position
- Tower dressing with fittings and accessories complete

2.3 MODULE #PCT – J03 – CABLE STRINGING WORKS
2.3.1 Relevant design and technical documents required
2.3.2 Review of construction process
2.3.3 Review of activities under each process

- Tower dressing with fittings (insulator strings and accessories complete)
- Installation of rollers and stringing equipment
- Stringing of cables on rollers
- Tensioning or sagging of cables to the design values
- Clamping of conductors onto insulator strings
- Installation of jumpers and dampers

2.4 MODULE #PCT – J04 – LINE TESTING AND COMMISSIONING WORKS
2.4.1 Relevant design and technical documents required
2.4.2 Review of commissioning process
2.4.3 Review of activities under each process

- Pre-commissioning Tests
- Commissioning of Transmission Line

2.5 MODULE #PCT-J05 – PRACTICAL ORGANIZATION OF THE INSPECTION PROCESS USING THE QUALITY INSPECTION PLAN

2.5.1 ISO 9001:2015 Quality Management Principles

- Strong customer focus
- Motivation and implication of top management
- Process approach
- Continual improvement

2.5.2 Sign-off Tracking Sheets
2.5.3 Inspection Check List and Sign-Off Field Sheets as per the Staking Chart

3. TRAINING APPROACH

The approach for this training shall include presentation of course material by the Instructor to be accompanied by field trips to existing project sites for the Course Participants to have a hands-on demonstration on the topic. The training shall be interactive and participants will be allowed to ask questions as and when necessary during the presentation.

4. KNOWLEDGE ACQUIRED & BENEFITS OF THE COURSE

The knowledge acquired from this training will enable the Course Participants to be able to carry out effectively inspection of engineering projects and in particular, high voltage overhead transmission line projects in a systematic and organized manner with the necessary sign-offs required for verification by project stakeholders as assurance of quality of work done. Participants will be provided with sample spreadsheets and templates that can be readily adopted on similar projects in their individual organisations.

5. TARGET GROUP

The Transmission Line Construction Inspection Course targets professionals involved in power line construction and in particular, project managers and engineers as well as field inspectors recruited by the client to oversee the implementation of important engineering projects contracted to EPC Contractors

6. COURSE FEE / VENUE

Course fee per participant = USD 1,440.00

This includes resource fee, use of conference room in a hotel facility, provision of a buffet lunch, snacks during morning and afternoon coffee breaks, water, and writing material for the participants during the entire duration of the course.

7. PAYMENT TERMS

100% Full Payment before the start of the course

8. COURSE DURATION /TIME

Five (5) Days including one day for site visit / 9:00am – 4:00pm including one (1) hour lunch break

9. TRAINER/FACILITATOR'S PROFILE

The Trainer holds a MSc. in Engineering with over 26 years of electric power infrastructure engineering, design and construction management experience in both public and private practice in Ghana and elsewhere in the West African sub-region. Over the period, has developed skills in the application of modern engineering design software and has been a Facilitator in training a number of engineering staff of power utility companies within the West Africa Sub-region.

Experience on numerous flagship projects in Ghana, with extensive knowledge of international best practices, codes and standards in electrical, civil and structural engineering. Specific expertise includes, but is not limited to:

- Management of electric power infrastructure projects, including, generation, transmission and Distribution systems.
- Professional Certification as Project Management Professional (PMP) with theProject Management Institute in 2009
- Design of low, medium, high to extra-high voltage power distribution and transmission lines, including line route selection, structure/foundation design and spotting, sag and tension calculations and preparation of sagging tables;
- Specification of insulator systems, clearance diagrams, shielding angles, general conductor/ tower fittings and accessories including tower grounding systems
- Design and Construction Supervision of medium to high voltage substation civil and electromechanical systems.
- Architectural and structural design of power station technical and non-technical buildings
- Design of power station equipment foundations and steel structures;
- Design of power station civil layout, boundary works and access roads

We intend to start training on this package during the last quarter of 2019. Interested individuals and organizations can contact **Power Consult Limited** to make their bookings. The exact weeks during which training would take place will be communicated to individuals and organizations who have registered. Special offers can also be negotiated by organizations with more than 10 participants including the time and location for the training. **Online registration** is available via Register Button provided below

Register Now

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