POSITION DESCRIPTION

JOB TITLE: Cable Design Engineer (cable studies), High Voltage Plant

LOCATION: Goose Creek, SC

PRIMARY FUNCTION: Cable technical studies engineer

Within the Tender and Systems Engineering, this job function consists of the analysis of the customer specifications and engineering of proposal of a cable system including design of cables and accessories definition of span lengths and cable laying configuration etc, and the costing of the same.

ORGANIZATIONAL RELATIONSHIPS:

LINE:	Reports to the Tender and System Engineering manager
DIRECT REPORTS:	Technician (where applicable)
INTERFACE:	Internal --Interfaces with tendering and commercial team, supports sales and marketing. Interfaces with plant process and product engineering External --Interfaces with customer standard engineers, application engineers

SPECIFIC RESPONSIBILITIES:

- Carries out technical studies of HVAC and HVDC underground links for various North American and international customers
  - Analyses of the customer technical documentation and proposes a design for the system including
    - Schematic diagrams, Grounding system design, basic civil work design
    - Calculations for electrical and thermal performance of the cable system including current carrying capacity, overload, induced voltages, short-circuit currents, impedances, etc.
    - Cable construction, packaging, shipment, testing , and costing
  - Supports the Commercial Engineer to answer any technical question.
  - Participate in meetings with clients when needed Verifies the technical feasibility and compliance with specification
  - Performs technical risk analysis for the project
  - Optimizes the technical offer to the benefit of technical performance and cost reduction.

- In case of commercial order he supports the Project Manager for any technical questions related to system and cable design.
  - Supports the factory for the definition of the cable manufacturing specification. Checks the “technical cable specifications”
  - Writes the calculation notes and modifies them until they are fully approved by the customer.
  - Provides all the necessary information for the system qualification and if necessary proposes a testing program to complement the available test records.
    Follows up the performance of the test program until full satisfaction of the customer.
    - Supports QA to respond to customer complaints, taking corrective action

Special responsibilities

- The following tasks are delegated under his control, in close cooperation:
  - Set up and management of the computing software (Excel® , Visual Basic for Excel®, MathCAD®) for the cable costing and technical calculations
  - Follow-up and up-dating of the manufacturing cost data base.
  - Development and validation of specific calculation procedures.
- Responsible for technical content for marketing publications, catalogues, brochures, web and promotional matter
- Participation in North American Industry committees for ICEA, IEEE, AEIC, (IEC and CIGRE)

PROCESS COMPETENCIES:

- Strong sense of quality in analytical work, application of standards, verification of own and others work and documentation
- Ability to lead creative and analytical product improvements and innovation
- Analytical and documented approach in problem solving and continuous improvement
- Methodical in measuring and Deployment and Monitoring of Key Indicators
- Ability to lead Formalization and Transmission of Knowledge and Skills
- Ability to lead and promote Teamwork with internal and external partners
- Focus on Customer Satisfaction

REQUIREMENTS:

- As a minimum Bachelor's Degree in Engineering required (Electrical, Electromechanical, Mechanical (thermal engineering an asset) , Electrical)
- Interest for working on broad issues (electrical, mechanical, materials, processs)
- In-depth knowledge about High Voltage cable technology, application and manufacturing processes
- Minimum of five to eight years experiences as an engineer in the high voltage cable industry with a minimum 4 years as HV cable design engineer with responsibility for cable design and cable costing
- In-depth knowledge of applicable industry standards: IEC, AEIC, ICEA, Cigre recommendations
- Solid experience with programming in Excel and MathCad as well as with drawing tools used by Nexans (CorelDraw, AutoCAD and Solid Works) and with finite element tools (Kelvin and Cymcap)
- Excellent oral and written communication skills