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| **Senior Technical Analyst – Research & Development**  Salary depending on skills/experience  **Dayshift** |
| Responsible, under direct supervision, for the implementation of the technology strategic plan for either product design improvements or new product initiatives employing conventional and advanced design techniques. At this level the STA will be able to demonstrate creativity and engineering judgement in resolving technology challenges.  The position requires the provision of analytical engineering expertise and knowledge of composite materials, preferably in continuous fibre technology and/or pipelines.  **Include the following but other duties may be assigned:-**   * Development and application of numerical and finite element models which predict the performance of flexible pipes incorporating composites under testing, installation and operational conditions. Requires expertise in FEA software tools Ansys or Abaqus. * Develop finite element models of the flexible pipe layers, end fitting components and ancillary equipment to predict stress, strain and displacement under thermal and mechanical loading. * Develop methodologies for the analysis of unbonded flexible pipes incorporating composite materials. * Structural design of ancillary equipment, end fittings and pipe handling equipment. * Ability to work on all stages of a project from concept through to qualification. * Interface with Technology Managers/Senior Engineers/Analysts/ Engineers within the organization. * Define/Generate/Collate project deliverables for development programmes * Produce product specification for defining programme scope and function, testing, qualification, budget, associated documentation, resources and schedule for approved development programmes. * Execute process of product development to meet Industry standards * Release product development information for incorporation in to design guidelines. * Assess commercial and contractual aspects/risk for outsourced activities within a PM designated project scope * Required to provide engineering expertise within a technology development project * Required to develop and define detailed work package planning and resource schedules to feed in to high level product development project plan * Participate in core business bid kick-off meetings and project handover meetings to facilitate knowledge transfer of industry requirements * Required to either lead or be a member of a cross functional team supporting internal or external programmes * Represent at relevant industry forums i.e. JIPs, seminars, conferences, specification bodies * Represent at suitable level of responsibility, at external customer development programmes i.e. TCAs * Support the writing and research in the production of development white papers * Identify and support patent assessments and filing opportunities including submission of COIs * Participate in idea generation activities in identifying development opportunities * Generate test scopes for product development projects * Produce functional and commercial specifications * Carry out investigation, analysis and reporting in support of both internal/external customers * Generate technical papers/publications to present materials or product developments/solutions (also peer reviews) * Respond to product design queries and clarifications as and when required by external customers * Interface with pipe systems/business development for customer requirements i.e. bid support, design clarifications, qualification envelope * Carry out investigation, analysis and reporting of product failure in support of both internal/external customers * Support continuous improvement activities for product/process enhancement/evolution * Review and approve procedures and SOIs which are related to product design requirements * Ensuring that all development projects have 3rd party IVA where applicable * Generate technical notes (bulletins) in the reporting of product improvements and clarifications * To be a nominated focal point for a specific technical area of expertise. * Liaise and co-ordinate with 3rd party external consultants in the provision of development related services * Provide product development instruction/awareness/training/seminars to both internal and external customers * Provide a product development consultancy service, as required, for external customers * Writing and/or approving procedures applicable to product development projects * Existing Vendor technical support, develop and maintain technical liaison with vendors as part of continuous improvement. * Respond to vendor technology queries and clarifications as and when required * Required to provide general tech. support to none local operations * Provide technical support to business development i.e. external customer presentations * Provide engineering support in the development, review and application of Product Quality Standard * Generate visitor reports (conferences, vendors, customers, external institutions etc) * Feedback and report on industry/competitor information relevant to industry * Provide training and development to engineers i.e., graduate programmes etc * Ensure the implementation of quality and safety plans in accordance with Company, Client and statutory requirements in the execution of assigned development projects. * Ensure personnel comply with quality and safety requirements in accordance with Company, Client and statutory requirements * Any other duties as directed by the Technology Manager R & D and Materials Engineering. |
| * Ability to work to a schedule and conduct work which may involve conflicting project requirements * Be a creative thinker to identify near term development solutions * Good organisation skills with the ability to directly inform and instruct Engineers, Technicians and other employees of specific engineering and HSEQ requirements. * Expertise in FEA tools Ansys or Abaqus * Ability to work within a team environment but with a team of high level engineers |
| * A university degree in a related subject ; Master's degree or equivalent or extensive experience at a Lead Engineer level functioning with an increased level of specialization, practice and responsibility plus development of others and demonstrating leadership responsibilities. |