



ThermoChem Recovery International, Inc.
3700 Koppers St. Suite 530
Baltimore, MD 21227
Tel 410.525-2400
www.tri-inc.net

Job Description: Project/Technical Service Engineer and/or Manager

The role of Project/Technical Services Engineer and/or Manager within TRI will be dynamic and include both office and field responsibilities. This comprises project engineering, technical services and project management functions.

PROJECT ENGINEERING

The responsibilities of this position will be diverse and will involve all aspects of projects undertaken at the TRI Advanced Development Center and on our Client Commercial Biorefinery Sites. The work will encompass feasibility studies through the development of appropriation grade capital cost estimates and TRI scope-of-supply price estimates, overseeing fabrication of TRI equipment, transport planning, field installation and start-up of TRI supplied major equipment and components. This may involve the following:

- Interface with internal resources for the development of the process engineering design package (sometimes referred to as PDP or Schedule A Package), including mass and energy balances, process flow diagrams, control strategies, P&ID drawings and equipment performance specifications and data sheets.
- Undertake mechanical designs for TRI supplied equipment that include vessels, refractory systems, cyclones, heat exchangers, hydraulic feeders and materials handling equipment.
- Interface with consultants, including refractory specialists, metallurgists, stress analysis experts (FEA dynamic and thermal), structural and equipment specialists.
- Interface with fabrication vendors for the quotation, detailed mechanical design, FEA and stress analysis, fabrication, QC activities and delivery of equipment to site
- Interface with Engineering Consultants for the detailed design of the process plant, including P&ID's, TRI equipment 3D modeling, plant layout reviews, piping interface charts and tie-in points, Hazop reviews, design reviews and project progress reports.
- Interface with the Construction Contractor for the installation of the process plant, especially regarding TRI equipment
- Interface with Clients during the execution of the project.
- Prepare and maintain project schedules and project cost control bases.
- Coordinate the project documentation, including drawings, data sheets, quality control plans, operating and maintenance manuals, code data books, etc.

TECHNICAL SERVICES ENGINEERING

Provide ongoing technical support to existing TRI commercial clients:

- Hands-on support to the operation of the TRI Process Demonstration Unit (PDU) at the Advanced Development Center,
- Development of project specific training modules
- Operator and Maintenance training for TRI equipment and processes



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- Be an active member of the TRI Commissioning and Start-up Team
- Support Client Operations and Maintenance through remote operations monitoring, regular site visits and inspections of process equipment during outages
- Support the TRI Business Development team with technical expertise

CAD, Project Management and other simulation software

TRI employs 2D/3D AutoCAD Inventor, MS Project, CPFD, JMP data analysis, Aspen process simulation, Stage Gate process, etc. Proficiency in 3D AutoCAD and Project Management software is essential to support ongoing efforts. Proficiency in the other software is advantageous. Familiarity with ASME Pressure Vessel and Piping Codes is required.

QUALIFICATIONS

Minimum qualifications include a Bachelor's degree in either Mechanical engineering or Chemical engineering, 10 plus years of relevant industry experience in mechanical design and project engineering, a working knowledge of 3D AutoCAD, Microsoft Project and Microsoft Office software. The applicant must be either a US citizen or a permanent resident and have technical coordination skills, management proficiency, excellent problem-solving skills and oral and written communication skills.