JOB DESCRIPTION

Job Title: New Product Initiative Engineer - Thermal

Prepared Date: 22/1/2020

Reports to: Director, NPI

Job Status: X full-time □ part-time

Department: New Product Initiative

Location: Singapore

Personnel Supervised: N/A

FLSA Classification: Exempt

JOB SUMMARY:
Gradiant Corporation is a technology driven industrial waste water company founded out of M.I.T. It has over 150 employees in the USA and has starting a R&D center at Singapore (Clean Tech Park I near NTU). The NPI Engineer will be part of a cutting edge product development/R&D team and will be responsible for developing and optimizing treatment solutions for industrial wastewaters. Responsibilities include but are not limited to design, fabrication, and optimization of treatment processes on and off-site. Candidate will utilize knowledge and competency in both science and engineering principles to collect empirical data and conduct critical analyses to provide support to team. Candidate will contribute to prototyping innovative technologies to optimize cost and quality of treatment.

ESSENTIAL DUTIES & RESPONSIBILITIES:

• Develop treatment processes:
  o Design and test different thermal desalination processes including Carrier Gas Extraction (CGE)
  o Model and run simulations to optimize design process
  o Design and test unique operational processes to treat a wide range of wastewaters.
  o Utilize analytical techniques to assess and optimize treatment efficiency.
  o Interpret and provide input to Process Flow Diagrams, Piping and Instrumentation Diagrams, and Process Data Sheets.
  o Analyze data and provide engineering support to improve or alter process to meet required water quality.
  o Diagnose and provide recommendations for problem solving and improvement to system.
  o Document experimental design, test data, results, and recommendations in clear, concise reports for internal and external presentations.
  o Assist with authoring operational policies and procedures.

• Field support and testing:
  o Travel to domestic/international locations.
  o Conduct field research for implementation of new processes and technologies.
  o Provide technical and operational support to team.

• Commercial Demo design and testing
  o Assist with the design, operation, and analyses of commercial demos for conversion to full-scale systems.

SKILLS/EXPERIENCE/EDUCATION REQUIRED:

• Master’s degree or above in Mechanical Engineering or other relevant fields
• Experience in rapid prototyping or manufacturing
• Demonstrated ability to fabricate bench-scale water testing systems.
• Competency in Thermodynamics and Heat & Mass Transfer
• Experience with Numerical method analysis or other modeling

JOB SPECIFICS:

• Ability to work in a high energy, start-up based environment and don multiple hats, if required.
• Strong communication skills to convey ideas and technical information effectively within team and to customers.
• Curiosity and strong drive to improve status-quo while working in a semi-autonomous environment.
Application
Please send your resume to Simon Choong (schoong@gradiant.com) and Steven Lam (lam@gradiant.com) by 22 February 2020.
JOBSUMMARY:

Gradiant Corporation is a technology-driven industrial wastewater company founded out of M.I.T. It has over 150 employees in the USA and has started a R&D center at Singapore (Clean Tech Park I near NTU). The NPI Engineer will be part of a cutting-edge product development/R&D team and will be responsible for developing and optimizing treatment solutions for industrial wastewaters. Responsibilities include but are not limited to design, fabrication, and optimization of treatment processes on and off-site. Candidate will utilize knowledge and competency in both science and engineering principles to collect empirical data and conduct critical analyses to provide support to team. Candidate will contribute to prototyping innovative technologies to optimize cost and quality of treatment.

ESSENTIAL DUTIES & RESPONSIBILITIES:

- Develop treatment processes:
  - Design and test a novel membrane desalination process, Counter-Flow Reverse Osmosis (CFRO) unique operational processes to treat a wide range of wastewaters.
  - Utilize analytical techniques to assess and optimize treatment efficiency.
  - Operation of analytical instruments e.g. ICP-OES, TOC analyzer, UV-vis etc.
  - Interpret and provide input to Process Flow Diagrams, Piping and Instrumentation Diagrams, and Process Data Sheets.
  - Analyze data and provide engineering support to improve or alter process to meet required water quality.
  - Diagnose and provide recommendations for problem solving and improvement to system.
  - Document experimental design, test data, results, and recommendations in clear, concise reports for internal and external presentations.

- Field support and testing:
  - Travel to domestic/international locations.
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  - Provide technical and operational support to team.

- Commercial Demo design and testing
  - Assist with the design, operation, and analyses of commercial demos for conversion to full-scale systems.

SKILLS/EXPERIENCE/EDUCATION REQUIRED:

- Bachelor’s or Master degree in Science, Chemical Engineering or Mechanical Engineering.
- 3-5 years’ experience in analytical wet chemistry sampling and measurement.
- Demonstrated ability to fabricate bench-scale water testing systems.
- Proficient in MATLAB or equivalent in data analysis and numerical modeling.
- Familiarity with ICP-OES recommended.
- Numerical method analysis recommended but not required.

JOBSPECIFICS:

- Ability to work in a high energy, start-up based environment and don multiple hats, if required.

1/22/2020
Strong communication skills to convey ideas and technical information effectively within team and to customers.
Curiosity and strong drive to improve status-quo while working in a semi-autonomous environment.

**Application**
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