Position Summary:

This position reports directly to the senior electrical engineer and discipline lead, and is responsible for overseeing and performing electrical engineering and related activities associated with TerraTherm projects, including: heater and electrical equipment calculations and specifications. This position will gradually become more involved with permitting, cost estimation, equipment procurement and fabrication, system startup, data management and reporting, and system troubleshooting (as required) for TerraTherm. This position involves a good amount (~50%) of travel to our project sites throughout the continental United States.

Responsibilities:

Design Engineering:

- Electrical design tasks may include heater calculations, electrical load calculations, short-circuit and overcurrent protection calculations, transformer and wire sizing, etc.
- Develop electrical equipment and power distribution equipment specifications; prepare electrical load calculations for single and three phase loads; prepare electrical single line drawings, schematics and detail drawings as required.
- Should have experience with ETAP (or similar) power system analysis tool.
- Assist with securing electrical service and rates for projects and bids with local or regional utility companies. Interface with permitting authorities and electrical subcontractors for electrical construction work.
- Develop equipment schedules and material takeoffs; prepare requests for bids for subcontractors and material vendors. Prepare construction and equipment specifications, including means and methods. Compare bids and recommend the selection of subcontractors and material vendors.
- Become involved with PLC configuration programs, ladder logic diagrams. Develop point-point wiring diagrams and select components for company-built PLC/control panels.
- Assist with support team on site visits for new project opportunities to determine the available site power, any site utility/facility constraints, collect information regarding construction permits, evaluate potential site support contractors, and assist with preparation of cost estimates.
- Oversee maintenance, testing and repair of company-owned electrical equipment.

Field Engineering [As Needed]:

- Perform the function of field engineer including hands on field work and/or field engineering, supervision of subcontractors, review of daily work production reports, schedule and budget. Inspect work of company staff and subcontractors. Communicate issues with senior electrical engineer.
  - Verify that daily production reports are maintained,
Electrical Engineer II
Job Description

- Perform field QA/QC to ensure construction work is performed in accordance with design specification,
- Prepare detail drawings and perform fabrication supervision,
- Keep senior electrical engineer informed on design and performance issues.

- Communicate and coordinate work quality or safety concerns to the TerraTherm project manager, general manager and technology manager as necessary to ensure proper and safe completion of the project.
- Assist the TerraTherm construction supervisor and system operators with equipment commissioning and startup, and operational troubleshooting as necessary. Cover system operator rotations (typically 1 to 2 weeks) when necessary.
- Perform on-site and in-house electrical training for the field operations group.

Staff Management/Discipline Leadership:

- Assist in developing and implementing staff development and training programs for direct reports. Set annual goals for direct reports and track progress during regular staff check-ins.
- Ensure all TerraTherm designs and installations are consistent with applicable codes, regulations, and standards.
- Assist in conducting annual electrical training programs for staff engineers, construction personnel, and operations staff.

Additional Responsibilities:

- Always look for new and better ways to streamline the cost and performance of thermal remediation projects, capture information, and make overall improvements as learning takes place.
- As directed, develop new methods/equipment in accordance with approved budget and scope.
- Continue to gain knowledge on the remediation of hazardous materials by reading relevant trade journals and related information.
- Travel as necessary to perform position description duties. Expect ~50% travel for periods of 1 to 2 weeks and occasionally up to 4 weeks at one time, based on project work load.

Qualifications:

Experience Required:

- At least 5 years direct engineering experience or 5 years equivalent experience in electrical design/construction industry
- Demonstrated hands on experience with electro-mechanical and process equipment fabrication, integration, operation and trouble shooting.
Electrical Engineer II
Job Description

- Ability to work with electrical meters and hand and power tools.
- Small / start-up company experience preferred, but not required
- Prefer at least 1 year experience in a remediation technology engineering environment, but not required
- Strong written and verbal communication skills
- Strong computer skills, including proficiency with Microsoft Word, Excel, AutoCAD

Education Required:
- BS or higher Electrical Engineering degree
- Advanced training and experience in electrical power system design and distribution

Certification/Licensing:
- 40 Hour OSHA HAZWOPER training, and current 8 hour refresher training (preferred, but not required)
- EIT strongly preferred

Skills/Aptitudes:
- Self-starter and outgoing personality traits
- Demonstrated leadership skills
- Ability to take direction and act independently
- Strong communications and organization skills
- Ability to manage multiple priorities and stay organized while doing so

Level of Supervision:
- Work independently based on general instructions, directions or objectives received from senior electrical engineer