

Vehicle Integration Engineer

Why ClearFlame

Diesel engines are critical to world economies and quality of life. However, they are currently coupled to dirty diesel emissions. At ClearFlame Engine Technologies, we are breaking the bond between the diesel engine and diesel fuel, clearing the path to gigaton scale emissions reduction for hard-to-electrify applications, including heavy-duty trucking, power generation, and other off-highway markets.

Easily integrated into existing engines and new production, ClearFlame maintains the same rugged performance and practicality at a much lower cost than current alternatives, offering a rapid pathway to decarbonizing diesel-dominated sectors worldwide. By allowing these engines to keep fulfilling their vital functions—but replacing diesel with plant-based, low-carbon liquid fuels—ClearFlame simultaneously addresses their climate impact, as well as the energy equity and environmental justice issues that disproportionately affect underrepresented populations globally.

We are on a mission to free global economies from a need for petroleum-based fuels in heavy-duty applications. We have big ambitions, but we can't do it alone. We need talented, passionate individuals to help make our vision a reality. In return, we provide comprehensive benefits and are committed to providing a positive team culture—supporting our team relentlessly and focusing on creating personal successes as well as organizational ones.

About the Position

Summary

We are looking for a Vehicle Integration Engineer with experience in the heavy-duty engine space to improve robustness of the test fleet vehicles. engines as applied to their target applications. This individual will carry out activities needed to proactively identify, detect, and prevent failures and improve the reliability of our fleet trucks. The right individual will have strong analytical foundations and extensive mechanical engineering experience in product design and development. This individual will manage critical reliability activities with our engines to meet business reliability expectations.

Essential Duties and Responsibilities

- Main responsibility will be to build test and validation plans and process to evaluate product reliability based on physics-of-failure (PoF) from simulations and provide feedback to meet reliability goals.
- Stress-test ClearFlame product offerings to identify potential failure modes in advance of customer testing.
- Investigate product failures, understand mechanisms, recommend appropriate action, owns problem resolution and documents results (e.g., FRACAS)

- Engage with engineering and other stake holders and make recommendations based on run to failure testing and stress vs strength analysis.
- Apply problem-solving and analytical skills to conduct failure analysis
- Design, analyze, and report results of product safety, performance, and reliability tests to key staff members
- Design and implement a reliable probabilistic method for analyzing fatigue failures
- Design Experiments to understand reliability analysis.
- Participates in team analysis for problem solving of major breakdowns.
- Knowledgeable with test procedures and applications
- Actively collaborate with engineering team and seek opportunity to develop & improve existing durability test methodology to enhance product development efficiency
- Serves as a subject matter expert in equipment failures and repair techniques during root cause investigations

Education and Experience Requirements

- Bachelor's degree in Mechanical, Electrical or Systems Engineering from an accredited institution.
- 3+ Years' experience in heavy-duty truck reliability/validation testing or similar
- Reliability expertise in reliability analysis and prediction methods
- Have strong knowledge of testing physics and products to be able to scale accelerated tests across different designs.
- Applied Reliability tool knowledge (P-Diagram, DFMEA, Reliability Demonstration Testing)
- Knowledge of ReliaSoft and/or Polarion is a plus
- Experience with applied statistics and measurement system assessment such as Gage R&R, SPC.
- Knowledge of vehicle systems (electronics & controls)
- Certified Reliability Engineer (CRE) certification through ASQ is a plus

Physical Requirements

- Prolonged periods of sitting at a desk and working on a computer
- Must be able to lift 25 lb. unassisted at times
- Travel up to 15%
- The position location is in our facility in Columbus, IN



You can also send a cover letter and resume to HR@clearflameengines.com

Equal Opportunity Employer:

ClearFlame is an Equal Opportunity Employer. Employment decisions are made without regard to race, color, religion, national origin, gender, sexual orientation, gender identity, age, physical or mental disability, genetic factors, military/veteran status or other characteristics protected by law.