ALMMII | American Lightweight Materials Manufacturing Innovation Institute

**Position:** AMPP Engineer
**Department:** Manufacturing Engineering
**Reporting To:** AMPP and Fuel Cell Operations Manager
**Job Location:**

**LIFT ALMMII Headquarters**
**1400 Rosa Parks Blvd**
**Detroit, MI 48216**

**Scope of Work & Purpose:**

We are seeking a hands-on Engineer with direct experience in metal production and processing to support the manufacturing of custom metal alloys in various forms, including castings, powder, rods, and wire. This role involves active engagement on the production floor, executing and optimizing key manufacturing processes from start to finish. The successful candidate will demonstrate strong practical knowledge of metal alloy manufacturing & processing. This position requires a deep understanding of manufacturing engineering principles, a proactive approach to solving production challenges, and a strong commitment to safety in a high-hazard environment. The Advanced Metallic Production and Processing (AMPP) Engineer will be a member of the LIFT Manufacturing Engineering team in a hands-on environment to support delivery against key technical programs and objectives, leveraging a variety of traditional and advanced manufacturing tools and technologies.

**KEY RESPONSIBILITIES & DUTIES**

**Production and Operation:**

- Execute production schedules to meet internal and external customer demands while maximizing efficiency and minimizing waste.
- Operate advanced manufacturing equipment used in processing metal alloys into components and test articles.
- Drive development of procedures and methods for processing novel alloys safely and efficiently.
- Ensure that all products meet quality standards and customer specifications through rigorous testing and analysis.
- Track inventory levels for raw materials and finished goods through the manufacturing execution system and communicate any issues noted.

**Maintenance:**

- Lead equipment cleanout/changeover processes to ensure safety, quality and reduce downtime.
- Track and lead routine and preventative maintenance activities to ensure safety, quality, and reduce downtime.

**Safety, 5S, and Compliance:**

- Adhere to safety protocols to minimize risks associated with producing metal powders and handling hazardous materials.
- Follow procedures for sorting, set in order, shine, standardize, and sustain to ensure a safe and organized work environment.

- Participate in regular safety inspections and audits to identify potential hazards and ensure adherence to safety regulations.

**PREFERRED QUALIFICATIONS AND COMPETENCIES:**

- **Education and Experience:**
  - A B.S. degree in engineering, manufacturing, materials science, or a related field is essential, with 5+ years of experience in raw materials production or processing, ideally within the metal alloys manufacturing industry. Hands-on experience with the production of custom metal alloys, including casting, powder processing, and wire drawing, is highly desirable. **OR**
  - A Ph.D. degree in engineering, manufacturing, materials science, or a related field is essential, with 2+ years of experience in raw materials production or processing, ideally within the metal alloys manufacturing industry. Hands-on experience with the production of custom metal alloys, including casting, powder processing, and wire drawing, is highly desirable.
- **Technical Knowledge:** Technical expertise in metal alloy production processes and equipment is desirable. Candidates should have an understanding of metallurgy, materials characterization, and advanced manufacturing technologies relevant to the production of metal alloys.
- **Safety and Compliance:** A thorough understanding of safety protocols and regulatory compliance related to hazardous materials handling is essential.
- **Leadership Skills:** This position has no direct reports; however, candidates should demonstrate the ability to inspire and motivate team members, foster a culture of collaboration, and support continuous improvement initiatives.
- **Communication and Problem-Solving:** Strong communication skills are vital for effectively coordinating production schedules, addressing technical challenges, and liaising with internal stakeholders and external partners. Candidates should also possess excellent problem-solving abilities to troubleshoot issues and implement effective solutions in a dynamic manufacturing environment.
- **Adaptability and Resilience:** The metal alloys manufacturing industry can be subject to fluctuations in demand, technological advancements, and regulatory changes. A good candidate should be adaptable and resilient, capable of managing change and driving innovation to maintain competitiveness and sustainability.

**About LIFT:**

LIFT, operated by the American Lightweight Materials Manufacturing Innovation Institute (ALMMII), is a nonprofit, public-private partnership, national advanced manufacturing innovation institute. As the national advanced materials manufacturing innovation institute, LIFT is an accelerator convening and connecting government, industry and academia in the fields of advanced materials, manufacturing processes, systems engineering and talent development to enhance America's manufacturing competitiveness, national economy and national security.