

# **HARRISON STEEL CASTINGS COMPANY**

## **Job Description**

**Job Title: Metallurgist**

**Reports To:** Melting Operations Manager

**FLSA Status:** Exempt

**Department:** Furnace and Lab

**Location:** Metallurgical Lab

**Prepared By/Date:** Eric Carroll, 10/2/2016

**Approved By/Date:** Shawn Martin, 10/6/2016

**Summary:** Responsible for working in conjunction with the Melting Operations Manager and the Director of Operations to monitor, maintain, measure and manage the metallurgical needs of Harrison Steel Castings Company by performing various duties personally or through subordinate employees in support of the organizations Mission and Vision Statements.

**Essential Duties and Responsibilities** include but are not limited to the following. Other duties may be assigned.

- Works with metallurgical and production staff to support the production processes on Furnace and Lab department-related topics.
- Develops new metal grades, quotes new metal specs or processes, problem solving, failure analysis related to castings process or melting process.
- Plan and conduct research to determine feasibility for New Product Introduction.
- Provide technical support for other departments with metallurgical issues in support of the needs of the business, including failure analysis and reports.
- Assists Welding Technician in establishing welding procedures and qualifications.
- Oversee the technical aspect of metallurgical testing, metallographic sample preparation and analysis thereof.
- Utilizes data analysis and metallurgical engineering practices to solve problems and develop solutions in support of manufacturing processes.
- Understand various industry standards and specifications.
- Assumes the Melting Operations Manager duties in his/her absence.
- Fosters, improves, maintains and offers guidance toward processes and strives for continuous improvements.

**Competency:**

To perform the job successfully, an individual should demonstrate the following competencies: identifies and resolves problems in a timely manner; demonstrates accuracy and thoroughness; excellent organizational and communication skills; ability to organize and prioritize multiple tasks and functions; ability to define, measure, analyze, improve, and control processes; and regular and predictable attendance.

**Qualifications:**

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Education/Experience:**

- Bachelor's degree in a Materials Science or Metallurgy related field.
- Preferred education and/or experience in the following areas: steel/ferrous metals, carbon steel, castings, EAF melting operations, basic slag practice, heat treatment of steel, developing new metal grades, heavy equipment such as cranes and/or semi-trailer operation.
- Preferred minimum 2 years industry experience in a steel casting foundry or 10 years relevant experience in steel/ferrous metals industry.

**Language Ability:**

Ability to read, analyze, and interpret common scientific and technical journals, financial reports, and legal documents. Ability to respond to common inquiries or complaints from customers, regulatory agencies, or members of the business community. Ability to write speeches and articles for publication that conform to prescribed style and format. Ability to effectively present information to top management, public groups, and/or boards of directors.

**Math Ability:**

Ability to work with mathematical concepts such as probability and statistical inference, and fundamentals of plane and solid geometry and trigonometry. Ability to apply concepts such as fractions, percentages, ratios, and proportions to practical situations.

**Reasoning Ability:**

Ability to apply principles of logical or scientific thinking to a wide range of intellectual and practical problems. Ability to deal with nonverbal symbolism (formulas, scientific equations, graphs, etc.,) in its most difficult phases. Ability to deal with a variety of abstract and concrete variables.

**Computer Skills:**

Proficient in Microsoft Office Suite.

**Certificates and Licenses:**

None required.

**Supervisory Responsibilities:**

Directly supervises several employees in the Melt Department. Carries out supervisory responsibilities in accordance with the organization's policies and applicable laws. Responsibilities include training employees; planning, assigning, and directing work; appraising performance; rewarding and disciplining employees; addressing complaints and resolving problems.

**Work Environment:**

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is occasionally exposed to moving mechanical parts, fumes or airborne particles, toxic or caustic chemicals, outside weather conditions, and extreme heat. This position will also be in close proximity to high voltage electricity due to the 20-ton electric arc furnaces. The noise level in the work environment is usually moderate in the office environment to very loud near the furnaces.

**Physical Demands:**

The physical demands described here are representative of those that must be met by an employee to Form 62FJ6221 Rev 1.0

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successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to talk or hear. The employee frequently is required to sit. The employee is occasionally required to stand, walk, and reach with hands and arms. The employee must regularly lift and/or move up to 30 pounds and occasionally lift and/or move up to 75 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

**Additional Information:**

As with any supervisor, common sense, problem solving ability, people skills, and communication skills are all very important.