

# GREEN FOUNDRY CASE STUDIES

## MANAGEMENT SYSTEMS & METRICS

### Inventory Control



**BEFORE**

#### **Description**

Prior to this project, refractory was stored in multiple locations throughout the plant and managed by three different departments that made their own purchases. Many times, refractory would be delivered to multiple locations without tracking between departments. Consequently, one department would order duplicate material because they didn't have it in their customary storage location, when it may have been located elsewhere. This often resulted in inventory error, inconsistent stock and shelf life issues.

In 2016, the facility centralized the inventory of refractory. An abandoned building was repurposed to house refractory that must be kept in climate controlled conditions. Building holes were sealed, new windows were installed and a layer of insulating plastic was applied to the windows. A heater was installed to maintain temperatures above freezing during winter. Inventory of refractory is set at a certain level and material is not re-ordered until old material has been used. In addition to secure centralized inventory, only purchasing personnel now have access to this storage area. End users must submit an issue ticket and an email when material is needed. Purchasing then releases inventory and it is delivered to the desired location.



**AFTER**

#### **Environmental Benefit**

Since this program began, refractory has not been discarded as waste. This project eliminated approximately 46,000 lbs/yr of waste refractory resulting from unnecessary over-stocking and/or improper storage. Natural gas usage is less due to heating a single, smaller storage building in the winter rather than multiple larger storage buildings.

#### **Cost & Savings**

This project resulted in estimated cost savings of \$116,000/yr in raw material purchasing costs and an estimated cost savings of \$3,000/yr in disposal costs. Reduced refractory costs from \$5.67/ton to \$4.03/ton of iron produced.

#### **Other Benefits**

Production personnel do not have to worry about inventory levels. They get what they need when they need it. Fresh Refractory is much easier to install. We have less inventory to store and handle.

#### **Applicability**

Inventory control is applicable to any facility. The better the control of inventory, the less material is wasted or goes unused



**AFTER**

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