Green Foundry Project 2002-03

ISO 50001 Energy Management Certification – First Metalcaster in US

☒ Full Scale Implementation OR ☐ Pilot Scale/Study

1. Description of the project: What is the issue and how did you fix it?

As a representative of an energy intensive industry, Waupaca Foundry has pursued energy use reduction practices and projects to reduce carbon emissions and maintain global competitiveness. However, prior efforts were project based and it was believed that additional improvements could be recognized with a more formal management system approach. A 12-month intensive effort included creating and implementing a program management structure, identifying and implementing energy efficiency opportunities, gathering and analyzing data to gauge energy consumption and performance, undertaking energy-related training and communications measures, and conducting an internal audit to identify and fix shortcomings relative to the ISO standard.

Following this implementation effort third party registration of the Energy Management System under an accredited ISO 50001 certification was achieved October 20, 2016. This represented the first ISO 50001 registration for a metal caster in the United States and the only the second facility from any industry in the State of Wisconsin.

2. Environmental Benefits: Conservation of raw materials or energy, reduction or elimination of emissions, wastes, toxics, water discharges, etc.

The utilization of a methodical management system approach has resulted in additional energy use reduction success, pulling overall performance of the facility to benchmark levels in the organization. To date, the facility has achieved an energy use reduction of more than 20% measured in Mmbtu/ton of iron melted (from a 2010 baseline). ISO 50001 registration is planned for a larger organizational roll out after the success achieved at this pilot facility.

3. Other Benefits: Productivity, health and safety, employee morale, etc.

The project has received a lot of local stakeholder interest, and accelerated energy program innovation and employee involvement.

4. Cost Savings: Capital cost, operating cost, ROI or other pertinent cost information.

With a formal Energy Management System opportunities for energy savings and cost savings will continually present themselves.

5. Applicability to other foundries and additional Comments

ISO 50001 is relevant to all metalcasters and other organizations outside the metalcasting industry.

6. Applicable Environmental Categories and Foundry Processes. Select all that apply.

Environmental Categories

☒ Carbon (GHG) Emissions Measurement and Reduction

☒ Air Quality ☐ Water Use and Discharge ☐ Waste Management

☐ Beneficial Use ☐ Stormwater ☒ Material and Resource Conservation

☒ Community Engagement

Foundry Process(es) Impacted

☐ Melt ☐ Pour ☐ Mold ☐ Core ☐ sand system/reclaim

☐ Shakeout ☐ Heat Treat ☐ Quench ☐ Finishing ☐Shipping

☐ Maintenance ☐ Pattern Shop ☐ Casting Design

☐ Management Systems and Metrics

☐ Other, explain: Click or tap here to enter text.

7. Add photos to enhance your application, if applicable.