

Green Sand as Road Base - Beneficial Use

Full Scale Implementation OR Pilot Scale/Study

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

7,891,00 pounds of green sand waste, year over year, was sent to landfill for disposal. This created high transportation and landfill costs as well as a vast waste to landfill number negatively affecting sustainability metrics. Coordinated with a local construction company to accept all foundry green sand waste generated as reuse/recycled road base material.

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

100% of waste sand is now being recycled as beneficial reuse as a result of sustainability efforts.

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

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

This project saves the company approximately \$116,000 in waste disposal expense per year. Should be noted that this project required zero capital monies or added transportation expense.

5. Applicability to other foundries and additional Comments

As we are all aware there is a huge benefit for both foundries and construction companies for utilizing waste sand as a road base material. We found that construction companies are now realizing this benefit and are very receptive to the idea. As long as the end user has the correct local, state & federal permits there are no limitations.

Green Foundry Project

2002-04

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:

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

