

## **Dust Collector Exhaust Recirculation Inside - Return Air Heat Harvesting**

Full Scale Implementation    OR     Pilot Scale/Study

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

Louvre/duct/HEPA system installed to return the wasted heat from dust collector discharges back into the building during the Winter months.

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

We see a reduction in annual propane usage of approximately 100,000 gallons.

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

We can now keep the foundry floor at a comfortable 65°F all Winter. Warm, tempered, HEPA polished air delivered to foundry floor all winter.

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

Capital cost of \$75,000 plus yearly HEPA filter swap-outs. Annual operating cost savings total roughly \$100,000.

### **5. Applicability to other foundries and additional Comments**

Yes for foundries located in cooler climates, cold winters.

**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.**

Photos on Next Page

