

Production kilns at Fireline

## For more information:

Klaus-Mark Peters Fireline, Inc 300 Andrews Ave, Youngstown, OH 44505 mpeters@fireline-inc.com

Larry Boyd Energy Industries of Ohio P.O. Box 31274 Independence, OH 44131 boyd@energyinohio.org

## Regional Industrial Energy Efficiency Success Story – Fireline, Inc.

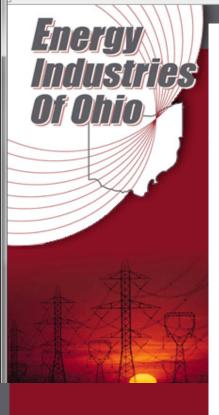
Fireline is a Youngstown-based manufacturer established in 1967 that presently employs 100 people in a 84,000 ft<sup>2</sup> facility. It produces a wide range of slip-cast refractories used in casting aerospace nickel and cobalt superalloys.



In 2009 Fireline embarked on a comprehensive energy management program that started with the EnVINTA One-2-Five assessment, conducted by Energy Industries of Ohio that evaluated the current energy management effectiveness. This was followed by a technical audit that established goals & objectives, action plan, and monitoring program. Both were done in collaboration with the Ohio Department of Development, Energy Resources Division and the Ohio Center for Industrial Energy Efficiency. Implementation of the new Energy Management System led to 43% electricity reduction and 18% natural gas savings with current projects

(lighting + kilns). An additional 30% energy savings with upcoming projects (product drying and firing improvements).







**Ohio** 

Department of Development

**Tony Sutor** 77 S. High St., 26th Floor P.O. Box 1001 Columbus, OH 43216-1001 (614) 466-8463

<u>Anthony.Sutor@developme</u> <u>nt.ohio.gov</u>

## For more information:

Larry Boyd Energy Industries of Ohio P.O. Box 31274 Independence, OH 44131 boyd@energyinohio.org

## Evolution of Energy Management Program at Fireline, Inc.

- <u>Phase 1</u> (1967 2006)-Productivity and profitability improvements
- <u>Phase 2</u> (2006 2009)-Energy Assessments
- <u>Phase 3</u> (2009 2010)- Implementation of a full Energy Management System



<u>Radiowave dryer</u> Process developed via collaboration with Youngstown State University, funded by Ohio Department of Development (Thomas Edison Program)

- 2006 West Virginia University
  - Plant-wide assessment (one day, 5 team members), resulting in 17 recommendations
- 2009 Energy Industries of Ohio
  - Gas-fired kilns surveyed using Process Heating Assessment and Survey Tool (PHAST)

Both funded by U.S. DOE Office of Energy Efficiency and Renewable Energy (EERE) Industrial Technology Program (ITP)

- EnVINTA One-2-Five assessment
  - Conducted by Energy Industries of Ohio
  - Evaluated the energy management effectiveness across 22 elements
- Development & implementation
  - Conducted technical audit
  - Established goals & objectives, action plan, and monitoring program

Done in collaboration with the Ohio Department of Development, Energy Resources Division and the Ohio Center for Industrial Energy Efficiency 2

Phase

Phase ]