



REFRACTORY FUNDAMENTALS

# TRAINING PROGRAM



**HWI**

A MEMBER  
OF CALDERYS

# YOUR EDUCATIONAL PARTNER

WE ARE A LEADING REFRACTORY MANUFACTURER AND TOTAL REFRACTORY SOLUTIONS PARTNER. WE'RE THE EXPERTS IN CONTAINING HEAT AND KEEPING ENVIRONMENTS SAFE. AND WE WANT TO PASS THAT KNOWLEDGE ON TO YOU.



Our industry experts created a comprehensive, hands-on refractory fundamentals training program designed to provide participants the opportunity to dive deeper into the processes of refractory technology, products, and applications.

**ALL EXPERIENCE LEVELS WELCOME**

## HOSTED BY HWI'S APPLICATIONS TECHNOLOGY AND RESEARCH & DEVELOPMENT TEAMS

This training program consists of classroom style learning, in depth lab demonstrations, and a tour of our Advanced Technology and Research Center. Participants are given the opportunity to learn hands-on, while the HWI team demonstrates the capabilities of various materials, provides recommendations for installation, and supplies technical explanations on various processes and benefits to our products.



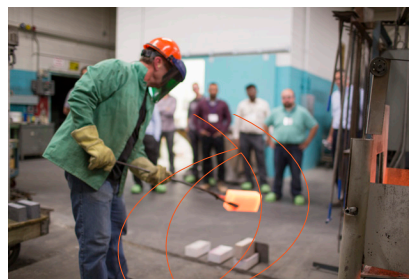
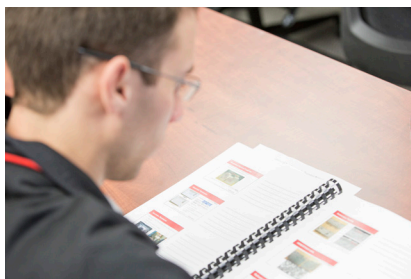
### ADVANCED TECHNOLOGY AND RESEARCH CENTER (ATRC)

HarbisonWalker International's Advanced Technology & Research Center in West Mifflin, PA, is home to refractory experts, research engineers, and scientists who work intensely every day to solve our industry's greatest challenges. As North America's largest facility dedicated to refractory research, our ATRC focuses on learning, testing, exploration, and innovation, and is home to some of the brightest minds in the refractory industry.

### NO ONE DELIVERS LIKE HWI

What sets the people of HWI apart? We have a burning desire for answers, excellence, and accuracy. We're thorough and meticulous. And absolute accountability is baked into our DNA.

Our application technology teams design refractory solutions that help improve efficiencies, make installations easier, extend campaign lives, and save our customers millions of dollars.



TOPICS COVERED

### REFRACTORIES 101:

A comprehensive overview of the types of refractories, their chemical compositions, product selection criteria, differing installation methods, physical testing, chemical properties, and wear mechanisms.

### MONOLITHICS 101 AND 201:

An in-depth look at monolithic refractories, with an emphasis on the types of monolithic bonds and installation considerations, as well as proper mixing, placing, curing, and dryout practices.

### HWI'S DIGITAL TOOLS:

Learn how to access and use the different e-marketing tools HarbisonWalker International has to offer, including our Heat Transfer program, our online business portal and our mobile tools app for smart phones.

### VALUE ADDED SERVICES:

Training on installation best practices and advanced refractory solutions.

### OTHER TOPICS:

Refractory myths, specifications, refractory ceramic fiber, brickmaking, and anchoring best practices.

### APPLICATION SPECIFIC:

Break-out sessions dedicated to specific industries including, but not limited to: glass, pulp & paper, power generation, incineration, aluminum, chemicals, refineries, foundries, cement, lime, iron and steel.

### TOUR AND LAB EXERCISES:

A hands-on look at select refractory products in our lab, and a full tour of our pilot plant.

In addition to the tour of HWI's analytical lab and pilot plant, product demos and quality testing, discussion topics may include new products and technologies, open innovation, brick making, dry outs, anchoring, and thermal expansion.

## SUBJECT MATERIAL

The topics above are just a sampling of the subjects highlighted in a fundamentals training program, and may or may not be covered throughout each program session. Our industry experts continuously evaluate possible subject material and update the course content with the latest product and installation news, enhancements, and developments.

## WHO SHOULD ATTEND

Hosted annually, this training course is intended for contractors/installers, designers, specifiers, and end-use customers of refractory products who represent a wide variety of industries. We encourage you to reach out to your HarbisonWalker International sales or marketing representative on future opportunities for participation.

## REGISTRATION

Participation in the program is limited in order to foster more conversational and personalized, tailored approaches to the course topics. Spaces are available on a first come, first served basis. In order to participate, attendees must register online and pay the registration fee. Attendees are responsible for their own transportation and lodging. HWI will reserve a block of rooms at a nearby hotel, and will communicate this location and all evening/extracurricular activity details in advance.





**ADVANCED TECHNOLOGY &  
RESEARCH CENTER**

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