

Lehigh Cement Company
CORPORATE OFFICE
7660 Imperial Way
Allentown, PA 18195-1040
Phone (610) 366-4600
Fax (610) 366-4684
www.lehighcement.com

Cement Plants Are a Professional Training Ground for New Engineers

Heidelberg Technology Center (HTC) conducts the Engineer-in-Training program to expose recent college graduates to the full scope of cement manufacturing. This comprehensive training is designed to give motivated, technically capable engineers from relevant engineering disciplines a solid foundation for a successful career in our industry.

A Lehigh Engineer-in-Training works in the program for one year, receiving on-the-job and formal technical training, as well as familiarity with other areas of our business. While working on real projects, side by side with HTC and plant staff, EITs learn about plant organization and departments, production and process, engineering, safety, environmental education, quality control and maintenance.

In an unusual circumstance, this year Lehigh's Delta Plant in British Columbia is host to five EITs at once. They were featured in the Winter 2006 issue. The Conveyor would now like to introduce four other recent graduates currently working in the EIT program at different Lehigh plants.



Alex Alfrey, EIT at the Leeds Plant.

Engineer In Training Alex Alfrey joined the Leeds Team in January 2007. In the short time Alex has been at Leeds, he has proved to be a big benefit to the plant by taking oxygen profiles on the kiln and raw mill circuits. He has also participated in the Raw Mill Performance test and evaluation of critical weigh scales.

During the Leeds annual kiln outage, one of his projects will be to install an air bypass from the coal mill to cooler hood, which will allow the plant to be more efficient with coal firing.

When asked how he likes the EIT program, Alex responded, "My time in the EIT program so far has been thoroughly enjoyable. It has allowed me to learn about the cement making process at many different plants, all of which operate differently and use unique equipment. This, along with seminars and conferences, gives me a chance to travel, gain a wide range of knowledge rather quickly, and meet some fantastic people."

Alex graduated from the University of Delaware with a degree in Chemical Engineering. His colleagues at Leeds note that Alex is a welcomed addition to the Leeds plant. He has already made positive contributions to their processes.

During his first EIT module, Sean Mulligan was assigned to the Tehachapi plant. Together with HTC process engineers, he worked on various projects to optimize production in several Lehigh cement plants. A chemical engineering grad from the University of Delaware, Sean focused his work on the cement manufacturing process and worked on coal mill audits, on kiln and cooler as well as on mill audits.

He then started to work on his final project in Mitchell plant in January this year. The objective for this paper is the optimization of the control loops for the two grate coolers of Kilns #1 and #2.

Sean explained, "I started working with Lehigh because of the unique opportunities the company provides and the genuine nature of the employees that interviewed me. I've thoroughly enjoyed the EIT program so far," he said, "and I've been impressed with the patience and knowledge of the other employees I've met throughout the country".



Sean Mulligan, EIT at the Mitchell Plant.



Jesse Yoon, EIT at the Edmonton Plant.

Jesse Yoon is a graduate of Lehigh University (Bethlehem, PA) with a degree in Mechanical Engineering. He arrived in Edmonton in July 2006 as a Mechanical EIT. Since his arrival Jesse has been a positive impact at the Edmonton plant. Plant personnel are giving Jesse an introduction to all areas of the cement manufacturing process.

Some of Jesse's tasks have included formulating job plans, down time and lube system reporting, contractor management, raw mix control study, maintenance planning and other production and maintenance functions.

With some of the experiences he acquired from his recent visit to Union Bridge, he is also going to play a major role in the upcoming scheduled outage.

Here are some of Jesse's thoughts on the program: "The EIT program has given me the diverse and in-depth exposure to the cement industry that is

otherwise difficult to achieve. Although each EIT is dedicated to one particular plant, the training opportunities are not limited to that one location. I participated in a Cement Chemistry course in Atlanta, assisted in the major outage at Union Bridge, and learned about alternative fuels in Evansville.

"Along the way, I have been introduced to many different people within the cement industry. The ability to meet and build relationships with individuals within the Lehigh network has been the greatest success of my EIT experience."

Matt Zapadka, a graduate of Penn State, is working as a Quality Control EIT stationed at Union Bridge. Matt has spent much of his time with Lehigh learning the Plant, Process and finally the Laboratory. Matt has been working on such projects as Inline Particle Size Analyzer for the new Finish Mill #1 project, Quality Control Manual for Union Bridge Plant and has learned what is necessary to be a Plant Chemist and ultimately Quality Control Manager.

Matt has also received training related to Kiln and Mill audits with HTC personnel. He participated in the Supervisory Program for front line supervisors.

"My EIT experience so far has been invaluable," commented Matt. "It has provided me with the experience necessary to have the tools to control the quality of the cement product— starting with the quarry and ending with shipping and even the field. I look forward to building upon the foundation that I have set."



Matt Zapadka, EIT at the Union Bridge Plant.